

Title	Journal	Link	Publication date	References	Top Paper
Fast super-resolution ultrasound microvessel imaging using spatiotemporal data with deep fully convolutional neural network	Physics in Medicine and Biology		2021	U. Wai, Lok, Chengwu, Huang, Ping, Gong, Shanshan, Tang, Lulu, Yang, Wei, Zhang, Yohan, Kim, Panagiotis, Korfiatis, Daniel J., Blezek, Fabrice, Lucien, Rongqin, Zheng, Joshua D., Trzasko, Shigao, Chen	Yes
A Protocol for Evaluating Vital Signs and Maternal-Fetal Parameters Using High-Resolution Ultrasound in Pregnant Mice	STAR Protocols	https://doi.org/10.1016/j.xpro.2020.100134	2020	Jose, Galaz, Roberto, Romero, Marcia, Arenas-Hernandez, Bogdan, Panaitescu, Valeria, Garcia-Flores, Nardhy, Gomez-Lopez	Yes
Scutellarin Prevents Angiogenesis in Diabetic Retinopathy by Downregulating VEGF/ERK/FAK/Src Pathway Signaling	Journal of Diabetes Research	https://www.hindawi.com/journals/jdr/2019/4875421/	2019	Lingli, Long, Yubin, Li, Shuang, Yu, Xiang, Li, Yue, Hu, Tengfei, Long, Liqin, Wang, Wenwen, Li, Xiaoxin, Ye, Zunfu, Ke, Haipeng, Xiao	Yes
Pharmacological inhibition of Notch signaling regresses pre-established abdominal aortic aneurysm	Scientific Reports	http://dx.doi.org/10.1038/s41598-019-49682-0	2019	Neekun, Sharma, Rishabh, Dev, Juan de Dios, Ruiz-Rosado, Santiago, Partida-Sanchez, Mireia, Guerau-de-Arellano, Pramod, Dhakal, Helena, Kuivaniemi, Chetan P., Hans	Yes
Strain Mapping From Four-Dimensional Ultrasound Reveals Complex Remodeling in Dissecting Murine Abdominal Aortic Aneurysms	Journal of Biomechanical Engineering	http://biomechanical.asmedigitalcollection.asme.org/article.aspx?doi=10.1115/1...	2019	Hannah L., Cebull, Arvin H., Soepriatna, John J., Boyle, Sean M., Rothenberger, Craig J., Goergen	Yes
Strain mapping from 4D ultrasound reveals complex remodeling in dissecting murine abdominal aortic aneurysms.	Journal of biomechanical engineering		2019	Hannah, Cebull, Arvin, Soepriatna, John, Boyle, Sean, Rothenberger, Craig, Goergen	Yes
Development and growth trends in angiotensin II-induced murine dissecting abdominal aortic aneurysms	Physiological Reports		2018	A.R., Adelsperger, E.H., Phillips, H.S., Ibriga, B.A., Craig, L.A., Green, M.P., Murphy, C.J., Goergen	Yes
Impairment of an Endothelial NAD + -H 2 S Signaling Network Is a Reversible Cause of Vascular Aging	Cell	http://linkinghub.elsevier.com/retrieve/pii/S0092867418301521	2018	Abhirup, Das, George X., Huang, Michael S., Bonkowski, Alban, Longchamp, Catherine, Li, Michael B., Schultz, Lynn-Jee, Kim, Brenna, Osborne, Sanket, Joshi, Yuan Cheng, Lu, Jose Humberto, Treviño-Villarreal, Myung-Jin, Kang, Tzong-Tyng, Hung, Brendan, Lee, Eric O., Williams, Masaki, Igarashi, James R., Mitchell, Lindsay E., Wu, Nigel, Turner, Zolt, Arany, Leonard, Guarente, David A., Sinclair	Yes
A critical role for macrophages in neovessel formation and the development of stenosis in tissue-engineered vascular grafts	The FASEB Journal	http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=3236622&tool=pmcentr...	2011	N., Hibino, T., Yi, D. R., Duncan, A., Rathore, E., Dean, Y., Naito, A., Dardik, T., Kyriakides, J., Madri, J. S., Pober, T., Shinoka, C. K., Breuer	Yes
FAM3A reshapes VSMC fate specification in abdominal aortic aneurysm by regulating KLF4 ubiquitination	Nature Communications		2023	Chuxiang, Lei, Haoxuan, Kan, Xiangyu, Xian, Wenlin, Chen, Wenxuan, Xiang, Xiaohong, Song, Jianqiang, Wu, Dan, Yang, Yuehong, Zheng	No
Doxorubicin-induced cardiovascular toxicity: a longitudinal evaluation of functional and molecular markers	Cardiovascular Research		2023	Matthias, Bosman, Dustin, Krüger, Charles, Van Assche, Hanne, Boen, Cédric, Neutel, Kasper, Favere, Constantijn, Franssen, Wim, Martinet, Lynn, Roth, Guido R Y, De Meyer, Berta, Cillero-Pastor, Leen, Delrue, Ward, Heggmont, Emeline M, Van Craenenbroeck, Pieter-Jan, Guns	No

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Temporal Progression of Aortic Valve Pathogenesis in a Mouse Model of Osteogenesis Imperfecta	Journal of Cardiovascular Development and Disease		2023	Kaitlyn, Thatcher, Carol R., Mattern, Daniel, Chaparro, Veronica, Goveas, Michael R., McDermott, Jessica, Fulton, Joshua D., Hutcheson, Brian R., Hoffmann, Joy, Lincoln	No
Upregulation of NOR-1 in calcified human vascular tissues: impact on osteogenic differentiation and calcification	Translational Research		2023	Carme, Ballester-Servera, Laia, Cañes, Judith, Alonso, Lidia, Puertas-Umbert, Paula, Vázquez-Sufuentes, Manel, Taurón, Elena, Roselló-Díez, Francisco, Marín, Cristina, Rodríguez, José, Martínez-González	No
Gut-derived metabolites mediating cognitive development in 5-year-old children: Early-life transplant in mice has lasting effects throughout adulthood	Brain, Behavior, and Immunity		2023	Maria Angela, Guzzardi, Federica, La Rosa, Federico, Granziera, Daniele, Panetta, Mercedes, Pardo-Tendero, Monica, Barone, Silvia, Turroni, Francesco, Falta, Claudia, Kusmic, Patrizia, Brigidi, Daniel, Monleon, Patricia, Iozzo	No
Neutrophil infiltration leads to fetal growth restriction by impairing the placental vasculature in DENV-infected pregnant mice		www.thelancet.com	2023	Yingying, Zhang, Ziyang, Sheng, Qiaozhu, Chen, Anni, Zhou, Jiaying, Cao, Feiyang, Xue, Yanzhen, Ye, Na, Wu, Na, Gao, Dongying, Fan, Libo, Liu, Yuetong, Li, Peigang, Wang, Li, Liang, Deshan, Zhou, Fuchun, Zhang, Fang, Li, Jing, An	No
Based on network pharmacology, gastrodin attenuates hypertension-induced vascular smooth muscle cell proliferation and PI3K/AKT pathway activation	Scientific reports		2023	Aling, Shen, Meizhu, Wu, Farman, Ali, Zhi, Guo, Yi, Fang, Yuting, Zhou, Siyu, Zhang, Wenqiang, Zhang, Ying, Wen, Min, Yu, Jun, Peng, Keji, Chen	No
Mechanisms of Small Intestine Involvement in Obesity-Induced Atherosclerosis	Diabetes, Metabolic Syndrome and Obesity		2023	Xiaoyu, Pan, Zhuoya, Jia, Ruoxi, Zhen, Lin, Yue, Shu, Niu, Jiangli, Ban, Shuchun, Chen	No
NOX2 inhibition stabilizes vulnerable plaques by enhancing macrophage efferocytosis via MertK/PI3K/AKT pathway	Redox Biology		2023	Yue, Wang, Xin-yan, Liu, Yue, Wang, Wenxin, Zhao, Fa-dong, Li, Peng-rong, Guo, Qian, Fan, Xiao-fan, Wu	No
Plexin D1 mediates disturbed flow-induced M1 macrophage polarization in atherosclerosis	Heliyon		2023	Suhui, Zhang, Yingqian, Zhang, Peng, Zhang, Zechen, Wei, Mingrui, Ma, Wei, Wang, Wei, Tong, Feng, Tian, Hui, Hui, Jie, Tian, Yundai, Chen	No
SerpinB3 as hepatic marker of post-resective shear stress	Updates in Surgery		2023	Enrico, Gringeri, Gianmarco, Villano, Silvia, Brocco, Marina, Polacco, Fiorella, Calabrese, David, Sacerdoti, Umberto, Cillo, Patrizia, Pontisso	No
Gastrodin attenuates angiotensin II-induced vascular contraction and MLCK/p-MLC2 pathway activation	Pharmaceutical Biology		2023	Zhi, Guo, Xuan, Yang, Meizhu, Wu, Aling, Shen, Jiapeng, Li, Xiuli, Zhang, Ying, Cheng, Qirong, Xie, Jun, Peng	No
Transcriptomic and physiological analyses reveal temporal changes contributing to the delayed healing response to arterial injury in diabetic rats	JVS-Vascular Science		2023	Sampath, Narayanan, Samuel, Röhl, Mariette, Lengquist, Malin, Kronqvist, Ljubica, Matic, Anton, Razuvaev	No
Impaired intracellular calcium homeostasis enhances protein O-GlcNAcylation and promotes vascular calcification and stiffness in diabetes	Redox Biology		2023	Weiping, Zhang, Yong, Sun, Youfeng, Yang, Yabing, Chen	No
Longitudinal in Vivo Monitoring of Atheroprogession in Hypercholesterolemic Mice Using Photoacoustic Imaging	Thrombosis and Haemostasis		2022	Bartolo, Ferraro, Pierangela, Giustetto, Olga, Schengel, Ludwig T., Weckbach, Lars, Maegdefessel, Oliver, Soehnlein	No

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Qingda granule ameliorates vascular remodeling and phenotypic transformation of adventitial fibroblasts via suppressing the TGF-β1/Smad2/3 pathway	Journal of Ethnopharmacology		2023	Meizhu, Wu, Siyu, Zhang, Wenqiang, Zhang, Yuting, Zhou, Zhi, Guo, Yi, Fang, Yanyan, Yang, Zhiqing, Shen, Dawei, Lian, Aling, Shen, Jun, Peng	No
Long-term dietary n3 fatty acid prevents aging-related cardiac diastolic and vascular dysfunction	Vascular Pharmacology		2023	Seyed Soheil, Saeedi Saravi, Nicole R., Bonetti, Ana, Vukolic, Daria, Vdovenko, Pratintip, Lee, Luca, Liberale, Cristina, Basso, Stefania, Rizzo, Alexander, Akhmedov, Thomas F., Lüscher, Giovanni G., Camici, Jürg H., Beer	No
MicroRNA-19b-3p dysfunction of mesenchymal stem cell-derived exosomes from patients with abdominal aortic aneurysm impairs therapeutic efficacy	Journal of Nanobiotechnology		2023	Yuxiao, Zhang, Xiaoran, Huang, Tucheng, Sun, Linli, Shi, Baojuan, Liu, Yimei, Hong, Qing Ling, Fu, Yuelin, Zhang, Xin, Li	No
Hif-1α/Slit2 Mediates Vascular Smooth Muscle Cell Phenotypic Changes in Restenosis of Bypass Grafts	Journal of Cardiovascular Translational Research		2023	Sen, Li, Zhiwei, Gao, Haiqing, Li, Chang, Xu, Bing, Chen, Qing, Zha, Ke, Yang, Weilin, Wang	No
Targeting mitochondrial stress with Szeto-Schiller 31 prevents experimental abdominal aortic aneurysm: Crosstalk with endoplasmic reticulum stress	British Journal of Pharmacology		2023	Miquel, Navas-Madroñal, Rafael, Almendra-Pegueros, Lidia, Puertas-Umbert, Francesc, Jiménez-Altayó, Josep, Julve, Belén, Pérez, Marta, Consegal-Pérez, Modar, Kassan, José, Martínez-González, Cristina, Rodríguez, María, Galán	No
Mesenchymal stem cell-derived extracellular vesicles protect against abdominal aortic aneurysm formation by inhibiting NET-induced ferroptosis	Experimental and Molecular Medicine		2023	Liang, Chen, Yuting, Liu, Zheyu, Wang, Leiyang, Zhang, Yi, Xu, Yinan, Li, Lan, Zhang, Guiming, Wang, Shuofei, Yang, Guanhua, Xue	No
Tensile and Compressive Mechanical Behaviour of Human Blood Clot Analogues	Annals of Biomedical Engineering		2023	Rachel M.E., Cahalane, Judith J., de Vries, Moniek P.M., de Maat, Kim, van Gaalen, Heleen M., van Beusekom, Aad, van der Lugt, Behrooz, Fereidoonzehad, Ali C., Akyildiz, Frank J.H., Gijzen	No
Transcriptomic and physiological analyses reveal temporal changes contributing to the delayed healing response to arterial injury in diabetic rats	JVS-Vascular Science	https://linkinghub.elsevier.com/retrieve/pii/S2666350323000159	2023	Sampath, Narayanan, Samuel, Röhl, Mariette, Lengquist, Malin, Kronqvist, Ljubica, Matic, Anton, Razuvaev	No
Local characterization of collagen architecture and mechanical failure properties of fibrous plaque tissue of atherosclerotic human carotid arteries	Acta Biomaterialia		2023	Su Guvenir, Torun, Pablo de Miguel, Munoz, Hanneke, Crielard, Hence J.M., Verhaagen, Gert Jan, Kremers, Antonius F.W., van der Steen, Ali C., Akyildiz	No
CARMA3 deficiency aggravates angiotensin II-induced abdominal aortic aneurysms development interacting between endoplasmic reticulum and mitochondria	Canadian Journal of Cardiology	https://doi.org/10.1016/j.carbpol.2021.118159	2023	Yiwei, Yao, Yide, Cao, Yueyue, Xu, Ganyi, Chen, Yafeng, Liu, Hongwei, Jiang, Rui, Fan, Wei, Qin, Xiaodi, Wang, Hao, Chai, Xin, Chen, Zhibing, Qiu, Wen, Chen	No

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Nonspherical ultrasound microbubbles	Proceedings of the National Academy of Sciences	http://www.pnas.org/lookup/suppl/doi:10.1073/pnas.2216830120/-/DCSupplemental.h...	2023	Anshuman, Dasgupta, Tao, Sun, Roberto, Palomba, Elena, Rama, Yongzhi, Zhang, Chanikarn, Power, Diana, Moeckel, Mengjiao, Liu, Apoorva, Sarode, Marek, Weiler, Alessandro, Motta, Céline, Porte, Zuzanna, Magnuska, Asmaa, Said Elshafei, Roman, Barmin, Adam, Graham, Arthur, McClelland, Dirk, Rommel, Elmar, Stickeler, Fabian, Kiessling, Roger M., Pallares, Laura, De Laporte, Paolo, Decuzzi, Nathan, McDannold, Samir, Mitragotri, Twan, Lammers	No
Peritoneal pre-conditioning impacts long-term vascular graft patency and remodeling	Biomaterials Advances	https://doi.org/10.1016/j.bioadv.2023.213386	2023	Mahyar, Sameti, Mozhgan, Shojaei, Bayan M., Saleh, Lisa K., Moore, Chris A., Bashur	No
Estimation of Mouse Carotid Arterial Wall Shear Stress Using High-Frequency Ultrasound Imaging	IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control	https://ieeexplore.ieee.org/document/10089421/	2023	Yu-Hsiang, Huang, Hsin, Huang, Fan-E, Mo, Chih-Chung, Huang	No
Mechanisms and efficacy of metformin-mediated suppression of established experimental abdominal aortic aneurysms	JVS-Vascular Science		2023	Baohui, Xu, Gang, Li, Yankui, Li, Hongping, Deng, Anna, Cabot, Jia, Guo, Makoto, Samura, Xiaoya, Zheng, Tiffany, Chen, Sihai, Zhao, Naoki, Fujimura, Ronald L., Dalman	No
Nonspherical ultrasound microbubbles	Proceedings of the National Academy of Sciences of the United States of America		2023	Anshuman, Dasgupta, Tao, Sun, Roberto, Palomba, Elena, Rama, Yongzhi, Zhang, Chanikarn, Power, Diana, Moeckel, Mengjiao, Liu, Apoorva, Sarode, Marek, Weiler, Alessandro, Motta, Céline, Porte, Zuzanna, Magnuska, Asmaa Said, Elshafei, Roman, Barmin, Adam, Graham, Arthur, McClelland, Dirk, Rommel, Elmar, Stickeler, Fabian, Kiessling, Roger M., Pallares, Laura, De Laporte, Paolo, Decuzzi, Nathan, McDannold, Samir, Mitragotri, Twan, Lammers	No
The antioxidant enzyme Peroxiredoxin-1 controls stroke-associated microglia against acute ischemic stroke	Redox Biology	https://doi.org/10.1016/j.redox.2022.102347	2022	Sinai, Kim, Wonhyo, Lee, Huiju, Jo, Seong Keun, Sonn, Se Jin, Jeong, Seungwoon, Seo, Joowon, Suh, Jing, Jin, Hyae Yon, Kweon, Tae Kyeong, Kim, Shin Hye, Moon, Sejin, Jeon, Jong Woo, Kim, Yu Ri, Kim, Eun Woo, Lee, Hwa Kyoung, Shin, Sung Ho, Park, Goo Taeg, Oh	No
Endothelial Cell TGF-β (Transforming Growth Factor-Beta) Signaling Regulates Venous Adaptive Remodeling to Improve Arteriovenous Fistula Patency	Arteriosclerosis, Thrombosis, and Vascular Biology		2022	Ryosuke, Taniguchi, Yuichi, Ohashi, Jung Seok, Lee, Haidi, Hu, Luis, Gonzalez, Weichang, Zhang, John, Langford, Yutaka, Matsubara, Bogdan, Yatsula, George, Tellides, Tarek M., Fahmy, Katsuyuki, Hoshina, Alan, Dardik	No

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Peptide Amphiphile Supramolecular Nanofibers Designed to Target Abdominal Aortic Aneurysms	ACS Nano		2021	Benjamin T., Ledford, Adam W., Akerman, Kui, Sun, David C., Gillis, Jenna M., Weiss, Johnny, Vang, Smaranda, Willcox, Tristan D., Clemons, Hiroaki, Sai, Ruomeng, Qiu, Mark R., Karver, Jack D., Griffith, Nick D., Tsihlis, Samuel I., Stupp, John S., Ikonomidis, Melina R., Kibbe	No
Spatiotemporal changes of local hemodynamics and plaque components during atherosclerotic progression in rabbit	Computer Methods and Programs in Biomedicine	https://doi.org/10.1016/j.cmpb.2022.106814	2022	Xiaoyin, Li, Xiao, Liu, Ye, Liang, Xiaoyan, Deng, Yubo, Fan	No
Endothelial dysfunction aggravates arterial media calcification in warfarin administered rats	FASEB Journal		2022	Geoffrey, Van den Bergh, Astrid, Van den Branden, Britt, Opdebeeck, Paul, Franssen, Ellen, Neven, Guido R.Y., De Meyer, Patrick C., D'Haese, Anja, Verhulst	No
Complement C5a induces the generation of neutrophil extracellular traps by inhibiting mitochondrial STAT3 to promote the development of arterial thrombosis	Thrombosis Journal	https://doi.org/10.1186/s12959-022-00384-0	2022	Yejia, Chen, Xiaobo, Li, Xinxin, Lin, Hongbin, Liang, Xuewei, Liu, Xinlu, Zhang, Qixia, Zhang, Fengyun, Zhou, Chen, Yu, Li, Lei, Jiancheng, Xiu	No
Fibroblast-Secreted Phosphoprotein 1 Mediates Extracellular Matrix Deposition and Inhibits Smooth Muscle Cell Contractility in Marfan Syndrome Aortic Aneurysm	Journal of Cardiovascular Translational Research	https://doi.org/10.1007/s12265-022-10239-8	2022	Mei, Zhou, Yuxin, Zhu, Zeyi, Zhou, Feiran, Qi, Shuai, Zheng, Shijuan, Gao, Yulin, Li, Yan, Liu, Jie, Du	No
Imaging Techniques for Aortic Aneurysms and Dissections in Mice: Comparisons of Ex Vivo, In Situ, and Ultrasound Approaches	Biomolecules		2022	Sohei, Ito, Hong S., Lu, Alan, Daugherty, Hisashi, Sawada	No
Endothelial cyclin I reduces vulnerability to angiotensin II-induced vascular remodeling and abdominal aortic aneurysm risk	Microvascular Research	https://doi.org/10.1016/j.mvr.2022.104348	2022	Wei, Zhao, Mengyu, Yao, Yunyi, Zhang, Da, Xiong, Guolin, Dai, Jinpin, Zhang, Yu, Cao, Hongrong, Li	No
Short-Term Pharmacological Induction of Arterial Stiffness and Hypertension with Angiotensin II Does Not Affect Learning and Memory and Cerebral Amyloid Load in Two Murine Models of Alzheimer's Disease	International Journal of Molecular Sciences		2022	Jhana O., Hendrickx, Elke, Calus, Peter Paul, De Deyn, Debby, Van Dam, Guido R.Y., De Meyer	No
Endothelial sodium channel activation mediates DOCA-salt-induced endothelial cell and arterial stiffening	Metabolism: Clinical and Experimental	https://doi.org/10.1016/j.metabol.2022.155165	2022	Liping, Zhang, Yan, Yang, Annayya R., Aroor, Guanghong, Jia, Zhe, Sun, Alan, Parrish, Garrett, Litherland, Benjamin, Bonnard, Frederic, Jaisser, James R., Sowers, Michael A., Hill	No
Comparable Impairment of Vascular Endothelial Function by a Wide Range of Electronic Nicotine Delivery Devices	Nicotine and Tobacco Research		2022	Poonam, Rao, Daniel D., Han, Kelly, Tan, Leila, Mohammadi, Ronak, Derakhshandeh, Mina, Navabzadeh, Natasha, Goyal, Matthew L., Springer	No
Targeting macrophage TFEB-14-3-3 epsilon Interface by naringenin inhibits abdominal aortic aneurysm	Cell Discovery		2022	Yiting, Jia, Lu, Zhang, Ziyi, Liu, Chenfeng, Mao, Zihan, Ma, Wenqiang, Li, Fang, Yu, Yingbao, Wang, Yaqian, Huang, Weizhen, Zhang, Jingang, Zheng, Xian, Wang, Qingbo, Xu, Jian, Zhang, Wei, Feng, Caihong, Yun, Chuanju, Liu, Jinpeng, Sun, Yi, Fu, Qinghua, Cui, Wei, Kong	No
BRD4770 functions as a novel ferroptosis inhibitor to protect against aortic dissection	Pharmacological Research	https://linkinghub.elsevier.com/retrieve/pii/S1043661822000676	2022	Yue, Chen, Xin, Yi, Bo, Huo, Yi, He, Xian, Guo, Zihao, Zhang, Xiaoxuan, Zhong, Xin, Feng, Ze-Min, Fang, Xue-Hai, Zhu, Xiang, Wei, Ding-Sheng, Jiang	No

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Impact of skin tone on photoacoustic oximetry and tools to minimize bias	Biomedical Optics Express		2022	Yash, Mantri, Jesse V., Jokerst	No
Platelet protects angiotensin II-driven abdominal aortic aneurysm formation through inhibition of inflammation	Experimental Gerontology	https://doi.org/10.1016/j.exger.2022.111703	2022	Xiaowei, Liu, Xiaofeng, Chen, Chen, Xu, Jiangjie, Lou, Yingzheng, Weng, Lijiang, Tang	No
Endothelial-derived extracellular microRNA-92a promotes arterial stiffness by regulating phenotype changes of vascular smooth muscle cells	Scientific Reports	https://doi.org/10.1038/s41598-021-04341-1	2022	Chen, Wang, Haoyu, Wu, Yuanming, Xing, Yulan, Ye, Fangzhou, He, Qian, Yin, Yujin, Li, Fenging, Shang, John Y.J., Shyy, Zu Yi, Yuan	No
Hexarelin attenuates abdominal aortic aneurysm formation by inhibiting SMC phenotype switch and inflammasome activation	Microvascular Research	https://doi.org/10.1016/j.mvr.2021.104280	2022	Bo, Jiang, Mo, Wang, Xue, Li, Pengwei, Ren, Guangxin, Li, Yuqi, Wang, Lei, Wang, Xuan, Li, Dong, Yang, Lingfeng, Qin, Shijie, Xin	No
Dysregulation of interaction between LOXhigh fibroblast and smooth muscle cells contributes to the pathogenesis of aortic dissection	Theranostics		2022	Yinan, Chen, Tao, Zhang, Fang, Yao, Xiang, Gao, Dandan, Li, Shufang, Fu, Lin, Mao, Fei, Liu, Xuelin, Zhang, Yongle, Xu, Jianqing, Deng, Weihao, Li, Guangpu, Fan, Cangsong, Xiao, Yu, Chen, Li, Wang, Wei, Guo, Bingying, Zhou	No
Long-term pharmacological inhibition of the activity of all nos isoforms rather than genetic knock-out of endothelial nos leads to impaired spatial learning and memory in c57bl/6 mice	Biomedicines		2021	Jhana O., Hendrickx, Sofie, De Moudt, Elke, Calus, Peter Paul, De Deyn, Debby, Van Dam, Guido R.Y., De Meyer	No
Kv7.4 channel is a key regulator of vascular inflammation and remodeling in neointimal hyperplasia and abdominal aortic aneurysms	Free Radical Biology and Medicine	https://linkinghub.elsevier.com/retrieve/pii/S0891584921008492	2022	Xi-zhenzi, Fan, Ying-Ying, Wang, Zi-Yang, Cui, Zi-Hao, Cheng, Hai-Lin, Zhang, Nikita, Gampfer, Fan, Zhang, Mei, Han	No
Chronic Intermittent Hypoxia Regulates CaMKII-Dependent MAPK Signaling to Promote the Initiation of Abdominal Aortic Aneurysm	Oxidative Medicine and Cellular Longevity		2021	Chenyu, Xu, Jun, Xu, Chunfang, Zou, Qian, Li, Shan, Mao, Ying, Shi, Yan, Tan, Wei, Gu, Liang, Ye	No
Hypoxic vasodilatory defect and pulmonary hypertension in mice lacking hemoglobin β-cysteine93 S-nitrosylation	JCI Insight	https://insight.jci.org/articles/view/155234	2022	Rongli, Zhang, Alfred, Hausladen, Zhaoxia, Qian, Xudong, Liao, Richard T., Premont, Jonathan S., Stamler	No
NR1D1 Deletion Induces Rupture-Prone Vulnerable Plaques by Regulating Macrophage Pyroptosis via the NF-κB/NLRP3 Inflammasome Pathway	Oxidative Medicine and Cellular Longevity	https://www.hindawi.com/journals/omcl/2021/5217572/	2021	Zhinan, Wu, Fei, Liao, Guqing, Luo, Yuxuan, Qian, Xinjie, He, Wenyi, Xu, Song, Ding, Jun, Pu	No
High-Frequency Three-Dimensional Lumen Volume Ultrasound Is a Sensitive Method to Detect Early Aneurysmal Change in Elastase-Induced Murine Abdominal Aortic Aneurysm	Aorta		2020	Mohammed A., Waduud, Parkavi, Kandavelu, Melanie, Reay, Katherine, Paradine, David J.A., Scott, Marc A., Bailey	No
G3BP2 regulates oscillatory shear stress-induced endothelial dysfunction	Genes and Diseases	https://doi.org/10.1016/j.gendis.2021.11.003	2022	Tianhan, Li, Juhui, Qiu, Tingting, Jia, Yinming, Liang, Kun, Zhang, Wenhua, Yan, Zhengjun, Hou, Shiwei, Yang, Lushan, Liu, Wenhao, Xiong, Yaokai, Chen, Guixue, Wang	No
FABP4 activates the JAK2/STAT2 pathway via Rap1a in the homocysteine-induced macrophage inflammatory response in ApoE $-/-$ mice atherosclerosis	Laboratory Investigation		2022	Lingbo, Xu, Huiping, Zhang, Yanhua, Wang, Anning, Yang, Xiaoyan, Dong, Lingyu, Gu, Dayue, Liu, Ning, Ding, Yideng, Jiang	No
[18F]fluorothymidine uptake in the porcine pancreatic elastase-induced model of abdominal aortic aneurysm	Journal of Imaging		2021	Richa, Gandhi, Joanna, Koch-Paszkowski, Charalampos, Tsoumpas, Marc A., Bailey	No

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A neutralizing IL-11 antibody reduces vessel hyperplasia in a mouse carotid artery wire injury model	Scientific Reports	https://doi.org/10.1038/s41598-021-99880-y	2021	David, Schumacher, Elisa A., Liehn, Pakhwan, Nilcham, David Castaño, Mayan, Chutima, Rattanasopa, Kaviya, Anand, Gustavo E., Crespo-Avilan, Sauri, Hernandez-Resendiz, Roshni R., Singaraja, Stuart A., Cook, Derek J., Hausenloy	No
Lysyl hydroxylase 1 (LH1) deficiency promotes angiotensin II (Ang II)-induced dissecting abdominal aortic aneurysm	Theranostics		2021	Hao, Li, Haochen, Xu, Hongyan, Wen, Hongyue, Wang, Ranxu, Zhao, Yingying, Sun, Congxia, Bai, Jiedan, Ping, Li, Song, Mingyao, Luo, Jingzhou, Chen	No
No effect of hypercholesterolemia on elastase-induced experimental abdominal aortic aneurysm progression	Biomolecules		2021	Toru, Ikezoe, Takahiro, Shoji, Jia, Guo, Fanru, Shen, Hong S., Lu, Alan, Daugherty, Masao, Nunokawa, Hiroshi, Kubota, Masaaki, Miyata, Baohui, Xu, Ronald L., Dalman	No
Potential of Gold Nanoparticles for Noninvasive Imaging and Therapy for Vascular Inflammation	Molecular Imaging and Biology	https://doi.org/10.1007/s11307-021-01654-5	2022	Hisanori, Kosuge, Maki, Nakamura, Ayako, Oyane, Kazuko, Tajiri, Nobuyuki, Murakoshi, Satoshi, Sakai, Akira, Sato, Atsushi, Taninaka, Taishiro, Chikamori, Hidemi, Shigekawa, Kazutaka, Aonuma	No
Development of a murine iliac arteriovenous fistula model for examination of hemodialysis access-related limb pathophysiology	JVS-Vascular Science		2021	Kyoungrae, Kim, Erik M., Anderson, Andrew J., Martin, Qiongyao, Hu, Tomas A., Cort, Kenneth C., Harland, Kerri A., O'Malley, Guanyi, Lu, Scott A., Berceli, Terence E., Ryan, Salvatore T., Scall	No
Induced pluripotent stem cells can improve thrombolytic effect of low-dose rt-PA after acute carotid thrombosis in rat	Stem Cell Research and Therapy	https://doi.org/10.1186/s13287-021-02615-z	2021	Hsi Lung, Hsieh, Ching Chung, Liang, Cheng You, Lu, Jen Tsung, Yang, Chiu Yen, Chung, Yu Shien, Ko, Tsong Hai, Lee	No
In vivo monitoring of venous thrombosis in mice	Journal of Thrombosis and Haemostasis		2012	M. N., Aghourian, C. A., Lemarié, M. D., Blöstein	No
Multicomponent Mechanical Characterization of Atherosclerotic Human Coronary Arteries: An Experimental and Computational Hybrid Approach	Frontiers in Physiology		2021	Su, Guvenir Torun, Hakki M., Torun, Hendrik H.G., Hansen, Giulia, Gandini, Irene, Berselli, Veronica, Codazzi, Chris L., de Korte, Antonius F.W., van der Steen, Francesco, Migliavacca, Claudio, Chiastra, Ali C., Akyildiz	No
Antiatherosclerotic effect of dehydrocorydaline on ApoE^{-/-} mice: inhibition of macrophage inflammation	Acta Pharmacologica Sinica		2021	Bin, Wen, Yuan ye, Dang, Su hua, Wu, Yi min, Huang, Kong yang, Ma, Yi ming, Xu, Xi Long, Zheng, Xiao yan, Dai	No
Circular RNA Cdy1 promotes abdominal aortic aneurysm formation by inducing M1 macrophage polarization and M1-type inflammation	Molecular Therapy	https://doi.org/10.1016/j.ymthe.2021.09.017	2022	Haoyu, Song, Yang, Yang, Yili, Sun, Guoquan, Wei, Hao, Zheng, Yijin, Chen, Donghua, Cai, Chuling, Li, Yusheng, Ma, Zhongqiu, Lin, Xiaoran, Shi, Wangjun, Liao, Yulin, Liao, Lintao, Zhong, Jianping, Bin	No
Baicalin attenuates angiotensin II-induced blood pressure elevation and modulates MLCK/p-MLC signaling pathway	Biomedicine and Pharmacotherapy	https://doi.org/10.1016/j.biopha.2021.112124	2021	Huixin, Liu, Ying, Cheng, Jianfeng, Chu, Meizhu, Wu, Mengchao, Yan, Di, Wang, Qirong, Xie, Farman, Ali, Yi, Fang, Lihui, Wei, Yanyan, Yang, Aling, Shen, Jun, Peng	No

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ADAM10 attenuates the Development of Abdominal Aortic Aneurysms in a Mouse model	Molecular Medicine Reports		2021	Qiu, Renfeng, Chen, Shuxiao, Gao, Peixian, Luo, Kun, Feng, Xuedong, Yuan, Hai, Wu, Xuejun, Li, Gang	No
Reversal of elastase-induced abdominal aortic aneurysm following the delivery of nanoparticle-based pentagalloyl glucose (PGG) is associated with reduced inflammatory and immune markers	European Journal of Pharmacology	https://doi.org/10.1016/j.ejphar.2021.174487	2021	Saphala, Dhital, Charles D., Rice, Naren R., Vyavahare	No
Fructose plus High-Salt Diet in Early Life Results in Salt-Sensitive Cardiovascular Changes in Mature Male Sprague Dawley Rats	Nutrients	https://www.mdpi.com/2072-6643/13/9/3129	2021	Peter E., Levanovich, Charles S., Chung, Dragana, Komnenov, Noreen F., Rossi	No
Metabolic maturation during postnatal right ventricular development switches to heart-contraction regulation due to volume overload	Journal of Cardiology	https://doi.org/10.1016/j.jjcc.2021.08.025	2022	Shoubao, Wang, Chuan, Jiang, Long, Zhao, Sijuan, Sun, Yingying, Xiao, Lincai, Ye, Qi, Sun, Junpeng, Li	No
Altered stress hormone levels affect in vivo vascular function in the hAPP23p/- overexpressing mouse model of Alzheimer's disease	American Journal of Physiology - Heart and Circulatory Physiology		2021	Jhana O., Hendrickx, Sofie, de Moudt, Debby, van Dam, Peter Paul, de Deyn, Paul, Fransen, Guido R.Y., de Meyer	No
Sympathoinhibition and vasodilation contribute to the acute hypotensive response of the superoxide dismutase mimic, MnTnBuOE-2-PyPS+, in hypertensive animals	Advances in Redox Research	https://linkinghub.elsevier.com/retrieve/pii/S2667137921000163	2021	Sarah L., Schlichte, Elizabeth J., Pekas, Taylor J., Bruett, Elizabeth A., Kosmacek, Bryan T., Hackfort, Jordan M., Rasmussen, Kaushik P., Patel, Song-Young, Park, Rebecca E., Oberley-Deegan, Matthew C., Zimmerman	No
Considerations for analysis of endothelial shear stress and strain in FSI models of atherosclerosis	Journal of Biomechanics		2021	Miten, Patel, Fotios, Savvopoulos, Caleb C., Berggren, Lydia, Aslanidou, Lucas H., Timmins, Ranil, de Silva, Ryan M., Pedrigi, Rob, Krams	No
Dental Pulp Mesenchymal Stem Cells Attenuate Limb Ischemia via Promoting Capillary Proliferation and Collateral Development in a Preclinical Model	Stem Cells International		2021	Youfeng, Li, Yuning, Zhang, Hua, Wang, Chengfeng, Sun, Dongmei, Liu, Hongying, Liu, Jia, He, Furong, Chen, Weitong, Wang, Xi, Jiang, Chu Tse, Wu, Yuefeng, Yang	No
Involvement of Endoplasmic Reticulum Stress-Mediated Activation of C/EBP Homologous Protein in Aortic Regurgitation-Induced Cardiac Remodeling in Mice	Journal of Cardiovascular Translational Research		2021	Xingxu, Wang, Wei, Wei, Jian, Wu, Le, Kang, Shuangquan, Wu, Jiming, Li, Yunli, Shen, Jieyun, You, Yong, Ye, Qi, Zhang, Yunzeng, Zou	No
The mitochondria-targeted antioxidant MitoQ attenuated PM2.5-induced vascular fibrosis via regulating mitophagy	Redox Biology		2021	Ruihong, Ning, Yang, Li, Zhou, Du, Tianyu, Li, Qinglin, Sun, Lisen, Lin, Qing, Xu, Junchao, Duan, Zhiwei, Sun	No
[18F]fluorothymidine uptake in the porcine pancreatic elastase-induced model of abdominal aortic aneurysm	Journal of Imaging		2021	Richa, Gandhi, Joanna, Koch-Paszkowski, Charalampos, Tsoumpas, Marc A., Bailey	No
Downregulated developmental processes in the postnatal right ventricle under the influence of a volume overload	Cell Death Discovery	http://dx.doi.org/10.1038/s41420-021-00593-y	2021	Chunxia, Zhou, Sijuan, Sun, Mengyu, Hu, Yingying, Xiao, Xiaofeng, Yu, Lincai, Ye, Lisheng, Qiu	No
3D-Printed Scaffolds Promote Angiogenesis by Recruiting Antigen-Specific T Cells	Engineering	https://doi.org/10.1016/j.eng.2021.05.018	2021	Cuidi, Li, Zhenjiang, Ma, Wentao, Li, Tianyang, Jie, Liping, Zhong, Hongfang, Chen, Wenhao, Wang, Jinwu, Wang, Wenguo, Cui, Yongxiang, Zhao	No
Biomechanical consequences of compromised elastic fiber integrity and matrix cross-linking on abdominal aortic aneurysmal enlargement	Acta Biomaterialia	https://doi.org/10.1016/j.actbio.2021.07.059	2021	D., Weiss, M., Latorre, B. V., Rego, C., Cavinato, B. J., Tanski, A. G., Berman, C. J., Goergen, J. D., Humphrey	No

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Silencing IL12p35 Promotes Angiotensin II-Mediated Abdominal Aortic Aneurysm through Activating the STAT4 Pathway	Mediators of Inflammation		2021	Lanlan, Wang, Chengyun, Hu, Yongfei, Dong, Feibiao, Dai, Yongxia, Xu, Yumeng, Dai, Lijie, Shao, Defa, Zhu	No
Cyclic nucleotide phosphodiesterase 1C contributes to abdominal aortic aneurysm	Proceedings of the National Academy of Sciences of the United States of America		2021	Chongyang, Zhang, Hongmei, Zhao, Yujun, Cai, Jian, Xiong, Amy, Mohan, Danfei, Lou, Hangchuan, Shi, Yishuai, Zhang, Xiaochun, Long, Jing, Wang, Chen, Yan	No
Mutation of the 5'-untranslated region stem-loop mRNA structure reduces type I collagen deposition and arterial stiffness in male obese mice	American Journal of Physiology - Heart and Circulatory Physiology		2021	Francisco I., Ramirez-Perez, Makenzie L., Woodford, Mariana, Morales-Quinones, Zachary I., Grunewald, Francisco J., Cabral-Amador, Tadashi, Yoshida, David A., Brenner, Camila, Manrique-Acevedo, Luis A., Martinez-Lemus, Bysani, Chandrasekar, Jaume, Padilla	No
Evaluation of fine particulate matter on vascular endothelial function in vivo and in vitro	Ecotoxicology and Environmental Safety	https://doi.org/10.1016/j.ecoenv.2021.112485	2021	Shuang, Liang, Tong, Zhao, Qing, Xu, Junchao, Duan, Zhiwei, Sun	No
Deletion of BK channels decreased skeletal and cardiac muscle function but increased smooth muscle contraction in rats	Biochemical and Biophysical Research Communications	https://doi.org/10.1016/j.bbrc.2021.07.027	2021	Chunyu, He, Xiaoyue, Li, Meili, Wang, Suli, Zhang, Huirong, Liu	No
Artesunate Attenuated the Progression of Abdominal Aortic Aneurysm in a Mouse Model	Journal of Surgical Research		2021	Liang, Cai, Hanfei, Tang, Min, Zhou, Yong, Ding, Xu, Li, Zhenyu, Shi	No
CCL7 contributes to angiotensin II-induced abdominal aortic aneurysm by promoting macrophage infiltration and pro-inflammatory phenotype	Journal of Cellular and Molecular Medicine		2021	Cuiping, Xie, Feiming, Ye, Ning, Zhang, Yuxue, Huang, Yun, Pan, Xiaojie, Xie	No
Red Blood Cell and Endothelial eNOS Independently Regulate Circulating Nitric Oxide Metabolites and Blood Pressure	Circulation		2021	Francesca, Leo, Tatsiana, Suvorava, Sophia K., Heuser, Junjie, Li, Anthea, Lobue, Frederik, Barbarino, Eugenia, Piragine, Rebekka, Schneckmann, Beate, Hutzler, Miranda E., Good, Bernadette O., Fernandez, Lukas, Vornholz, Stephen, Rogers, Allan, Doctor, Maria, Grandoch, Johannes, Stegbauer, Eddie, Weitzberg, Martin, Feelisch, Jon O., Lundberg, Brant E., Isakson, Malte, Kelm, Miriam M., Cortese-Krott	No
Activation of Smad2/3 signaling by low fluid shear stress mediates artery inward remodeling	Proceedings of the National Academy of Sciences of the United States of America		2021	Hanqiang, Deng, Elizabeth, Min, Nicolas, Baeyens, Brian G., Coon, Rui, Hu, Zhen W., Zhuang, Minghao, Chen, Billy, Huang, Titilayo, Afolabi, Georgia, Zarkada, Angela, Acheampong, Kathleen, McEntee, Anne, Eichmann, Fang, Liu, Bing, Su, Michael, Simons, Martin A., Schwartz	No
Management of metabolic syndrome and reduction in body weight in type II diabetic mice by inhibiting glycosphingolipid synthesis	Biochemical and Biophysical Research Communications	https://doi.org/10.1016/j.bbrc.2020.02.104	2020	Subroto, Chatterjee, Lucy, Zheng, Sijia, Ma, Djahida, Bedja, Veera Venkata Ratnam, Bandaru, Grace, Kim, Alexa B., Rangelcroft, Domenica, Iocco, Sean A., Campbell	No

Title	Journal	Link	Publication date	References	Top Paper
Ultrasensitive Carbon Nanotubes for Photoacoustic Imaging of Inflamed Atherosclerotic Plaques	Advanced Functional Materials	https://onlinelibrary.wiley.com/doi/10.1002/adfm.202101005	2021	Mahsa, Gifani, Devon J., Eddins, Hisanori, Kosuge, Yapei, Zhang, Sesha L. A., Paluri, Timothy, Larson, Nicholas, Leeper, Leonore A., Herzenberg, Sanjiv Sam, Gambhir, Michael V., McConnell, Eliver E. B., Ghosn, Bryan Ronain, Smith	No
Anti-atherogenic effect of 10% supplementation of anchovy (Engraulis encrasicolus) waste protein hydrolysates in apoe-deficient mice	Nutrients		2021	Jessica Maria, Abbate, Francesco, Macri, Francesca, Arfuso, Carmelo, Iaria, Fabiano, Capparucci, Carmelo, Anfuso, Antonio, Ieni, Luca, Cicero, Giovanni, Briguglio, Giovanni, Lanteri	No
Soluble epoxide hydrolase deletion attenuated nicotine-induced arterial stiffness via limiting the loss of SIRT1	American Journal of Physiology-Heart and Circulatory Physiology		2021	Shuiqing, Hu, Jinlan, Luo, Menglu, Fu, Liman, Luo, Yueting, Cai, Wenhua, Li, Yuanyuan, Li, Ruolan, Dong, Yan, Yang, Ling, Tu, Xizhen, Xu	No
A Thrombin-Responsive Nanoprobe for in Vivo Visualization of Thrombus Formation through Three-Dimensional Optical/Computed Tomography Hybrid Imaging	ACS Applied Materials and Interfaces		2021	Yabin, Wang, Mengqi, Xu, Ning, Yang, Shan, Gao, Sulei, Li, Jibin, Zhang, Yiming, Bi, Shenghan, Ren, Yi, Hou, Min, Jiang, Junsong, Liu, Yazhuo, Hu, Lei, Gao, Feng, Cao	No
Bioinspired therapeutic platform based on extracellular vesicles for prevention of arterial wall remodeling in hypertension	Bioactive Materials	https://doi.org/10.1016/j.bioactmat.2021.06.005	2021	Chen, Wang, Changyang, Xing, Zhelong, Li, Yunnan, Liu, Qiaoying, Li, Yixiao, Wang, Jiao, Hu, Lijun, Yuan, Guodong, Yang	No
Senolytic agents lessen the severity of abdominal aortic aneurysm in aged mice	Experimental Gerontology	https://doi.org/10.1016/j.exger.2021.111416	2021	Mojtaba, Parvizi, Federico, Franchi, Bonnie K., Arendt, Sanam, Ebtehaj, Martin, Rodriguez-Porcel, Ian R., Lanza	No
In vivo photoacoustic imaging for monitoring treatment outcome of corneal neovascularization with metformin eye drops	Biomedical Optics Express	https://www.osapublishing.org/abstract.cfm?URI=boe-12-6-3597	2021	Kwok-Ho, Lui, Shiyang, Li, Wai-sum, Lo, Yanjuan, Gu, Wing-Tak, Wong	No
Chronic stimulation of group II metabotropic glutamate receptors in the medulla oblongata attenuates hypertension development in spontaneously hypertensive rats	PLOS ONE	http://dx.doi.org/10.1371/journal.pone.0251495	2021	Julia Chu-Ning, Hsu, Shin-ichi, Sekizawa, Ryota, Tochinai, Masayoshi, Kuwahara	No
Aortic disease in Marfan syndrome is caused by overactivation of sGC-PRKG signaling by NO	Nature Communications	http://dx.doi.org/10.1038/s41467-021-22933-3	2021	Andrea, de la Fuente-Alonso, Marta, Toral, Alvaro, Alfayate, María Jesús, Ruiz-Rodríguez, Elena, Bonzón-Kulichenko, Gisela, Teixido-Tura, Sara, Martínez-Martínez, María José, Méndez-Olivares, Dolores, López-Maderuelo, Ileana, González-Valdés, Eusebio, García-Izquierdo, Susana, Mingo, Carlos E., Martín, Laura, Muño-Mosquera, Julie, De Backer, J. Francisco, Nistal, Alberto, Forteza, Arturo, Evangelista, Jesús, Vázquez, Miguel R., Campanero, Juan Miguel, Redondo	No
Contrast-enhanced ultrasound molecular imaging of activated platelets in the progression of atherosclerosis using microbubbles bearing the von Willebrand factor A1 domain	Experimental and Therapeutic Medicine	http://www.spandidos-publications.com/10.3892/etm.2021.10153	2021	Jie, Tian, Yahui, Weng, Ruiying, Sun, Ying, Zhu, Jun, Zhang, Hongyun, Liu, Yani, Liu	No

Title	Journal	Link	Publication date	References	Top Paper
Systemic delivery of targeted nanotherapeutic reverses angiotensin II-induced abdominal aortic aneurysms in mice	Scientific Reports	https://doi.org/10.1038/s41598-021-88017-w	2021	Xiaoying, Wang, Vaideesh, Parasaram, Saphala, Dhital, Nasim, Nosoudi, Shahd, Hasanain, Brooks A., Lane, Susan M., Lessner, John F., Eberth, Naren R., Vyavahare	No
Mst1/2 Kinases Inhibitor, XMU-MP-1, Attenuates Angiotensin II-Induced Ascending Aortic Expansion in Hypercholesterolemic Mice	Circulation Reports		2021	Michihiro, Okuyama, Weihua, Jiang, Lihua, Yang, Venkateswaran, Subramanian	No
Doxorubicin induces arterial stiffness: A comprehensive in vivo and ex vivo evaluation of vascular toxicity in mice	Toxicology Letters		2021	Matthias, Bosman, Kasper, Favere, Cédric H.G., Neutel, Griet, Jacobs, Guido R.Y., De Meyer, Wim, Martinet, Emeline M., Van Craenenbroeck, Pieter-Jan D.F., Guns	No
Chemerin-9 Attenuates Experimental Abdominal Aortic Aneurysm Formation in ApoE^{-/-} Mice	Journal of Oncology	https://www.hindawi.com/journals/jo/2021/6629204/	2021	Shuxiao, Chen, Chenglin, Han, Shuai, Bian, Jianfeng, Chen, Xuedong, Feng, Gang, Li, Xuejun, Wu	No
Gelatin coating promotes in situ endothelialization of electrospun polycaprolactone vascular grafts	Journal of Biomaterials Science, Polymer Edition	https://doi.org/10.1080/09205063.2021.1909413	2021	Yuehao, Xing, Yongquan, Gu, Lianrui, Guo, Jianming, Guo, Zeqin, Xu, Yonghao, Xiao, Zhiping, Fang, Cong, Wang, Zeng-Guo, Feng, Zhonggao, Wang	No
Stiffness of aortic arch and carotid arteries increases in ApoE-knockout mice with high-fat diet: Evidence from echocardiography	American Journal of Translational Research		2021	Ming, Tang, Liang, Hong, Haibin, Li, Wanshi, Chen, Leon, Tai, Richard, Minshall, Wei, Huang, Jiwang, Chen	No
Three-dimensional visualization and improved quantification with super-resolution ultrasound imaging - Validation framework for analysis of microvascular morphology using a chicken embryo model	Physics in Medicine and Biology		2021	Ipek, Ozdemir, Kenneth, Johnson, Shelby, Mohr-Allen, Kara E., Peak, Victor, Varner, Kenneth, Hoyt	No
Lox14 abrogation does not exaggerate angiotensin II-induced thoracic or abdominal aortic aneurysm in mice	Genes		2021	Huimin, Li, Jun, Guo, Yiting, Jia, Wei, Kong, Wei, Li	No
SNF5 promotes IL-18 expression via H3K4me1 in atherosclerosis induced by homocysteine	International Journal of Biochemistry and Cell Biology	https://doi.org/10.1016/j.biocel.2021.105974	2021	Lin, Xie, Ning, Ding, Honghong, Zhang, Kun, Liu, Jiantuan, Xiong, Shengchao, Ma, Anning, Yang, Huiping, Zhang, Yideng, Jiang	No
Measurement of total liver blood flow in intact anesthetized rats using ultrasound imaging	Pharmacology Research and Perspectives		2021	Christopher R., Gibson, Alexa, Gleason, Eric, Messina	No
The effect of hypoxia-mimicking responses on improving the regeneration of artificial vascular grafts	Biomaterials	https://doi.org/10.1016/j.biomaterials.2021.120746	2021	Muhammad, Rafique, Tingting, Wei, Qiqi, Sun, Adam C., Midgley, Ziqi, Huang, Ting, Wang, Muhammad, Shafiq, Dengke, Zhi, Jianghua, Si, Hongyu, Yan, Deling, Kong, Kai, Wang	No
Activation of angiotensin type 2 receptor attenuates testosterone-induced hypertension and uterine vascular resistance in pregnant rats	Biology of Reproduction		2021	Jay S, Mishra, Sathish, Kumar	No
Rolipram prevents the formation of abdominal aortic aneurysm (Aaa) in mice: pde4b as a target in AAA	Antioxidants		2021	Saray, Varona, Lidia, Puertas, Maria, Galán, Mar, Orriols, Laia, Cañes, Silvia, Aguiló, Mercedes, Camacho, Marc, Sirvent, Vicente, Andrés, José, Martínez-González, Cristina, Rodríguez	No
Inhibition of NOX1 Mitigates Blood Pressure Increases in Elastin Insufficiency	Function		2021	Angela, Troia, Russell H, Knutsen, Carmen M, Halabi, Daniela, Malide, Zu Xi, Yu, Amanda, Wardlaw-Pickett, Elise K, Kronquist, Kit Man, Tsang, Attila, Kovacs, Robert P, Mecham, Beth A, Kozel	No

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Chemotherapy-induced acute vascular injury involves intracellular generation of ROS via activation of the acid sphingomyelinase pathway	Cellular Signalling	https://doi.org/10.1016/j.cellsig.2021.109969	2021	Aviram, Mizrahi, Irit, Ben-Aharon, Hongyan, Li, Hadas, Bar-Joseph, Chloe, Boddien, Elad, Hikri, Aron, Popovtzer, Ruth, Shalgi, Adriana, Haimovitz-Friedman	No
Accelerated atherosclerosis caused by serum amyloid A response in lungs of ApoE^{-/-} mice	FASEB Journal		2021	Daniel Vest, Christophersen, Peter, Møller, Morten Bækgaard, Thomsen, Jens, Lykkesfeldt, Steffen, Loft, Håkan, Wallin, Ulla, Vogel, Nicklas Raun, Jacobsen	No
Acute glucose influx-induced mitochondrial hyperpolarization inactivates myosin phosphatase as a novel mechanism of vascular smooth muscle contraction	Cell Death & Disease	http://dx.doi.org/10.1038/s41419-021-03462-9	2021	Jie, Xu, Hongyan, Yang, Lu, Yang, Zhen, Wang, Xinghua, Qin, Jiaheng, Zhou, Ling, Dong, Jia, Li, Minsheng, Zhu, Xing, Zhang, Feng, Gao	No
Histone citrullination as a novel biomarker and target to inhibit progression of abdominal aortic aneurysms	Translational Research	https://linkinghub.elsevier.com/retrieve/pii/S1931524421000268	2021	Wolf, Eilenberg, Branislav, Zagrapan, Sonja, Bleichert, Nahla, Ibrahim, Viktoria, Knöbl, Annika, Brandau, Luca, Martelanz, Marie-Therese, Grasl, Hubert, Hayden, Paimann, Nawrozi, Renata, Rajic, Charlotte, Häusler, Alexandros, Potolidis, Nawa, Schirwani, Andreas, Scheuba, Johannes, Klopff, Peter, Teubenbacher, Markus P., Weigl, Patrick, Kirchweiger, Dietrich, Beitzke, Alexander, Stiglbauer-Tscholakoff, Adelheid, Panzenböck, Irene, Lang, Lisa-Marie, Mauracher, Lena, Hell, Ingrid, Pabinger, Marc A., Bailey, D Julian A, Scott, Lars, Maegdefessel, Albert, Busch, Ihor, Huk, Christoph, Neumayer, Christine, Brostjan	No
Sonopermeation Enhances Uptake and Therapeutic Effect of Free and Encapsulated Cabazitaxel	Ultrasound in Medicine and Biology		2021	Sofie, Snipstad, Yrr, March, Einar, Sulheim, Andreas, Åslund, André, Pedersen, Catharina de Lange, Davies, Rune, Hansen, Sigrid, Berg	No
P-Selectin Glycoprotein Ligand-1 Deficiency Protects Against Aortic Aneurysm Formation Induced by DOCA Plus Salt	Cardiovascular Drugs and Therapy		2021	Xianxian, Wu, Xing, Liu, Hang, Yang, Qianlong, Chen, Na, Zhang, Yuhua, Li, Xingchen, Du, Xue, Liu, Xiaoliang, Jiang, Yideng, Jiang, Zhou, Zhou, Zhiwei, Yang	No
Animal Model Dependent Response to Pentagalloyl Glucose in Murine Abdominal Aortic Injury	Journal of Clinical Medicine		2021	Jennifer L., Anderson, Elizabeth E., Niedert, Sourav S., Patnaik, Renxiang, Tang, Riley L., Holloway, Vangelina, Osteguín, Ender A., Finol, Craig J., Goergen	No
A Dual Role of Heme Oxygenase-1 in Angiotensin II-Induced Abdominal Aortic Aneurysm in the Normolipidemic Mice	Cells		2021	Aleksandra, Kopacz, Damian, Klóska, Ewa, Werner, Karolina, Hajduk, Anna, Grochot-Przęczek, Alicja, Józkowicz, Aleksandra, Piechota-Polańczyk	No
Digestive n-6 Lipid Oxidation, a Key Trigger of Vascular Dysfunction and Atherosclerosis in the Western Diet: Protective Effects of Apple Polyphenols	Molecular Nutrition and Food Research		2021	Gaëtan, Bolea, Clothilde, Philouze, Mathilde, Dubois, Sydney, Risdon, Anaïs, Humberclaude, Christian, Ginies, Anne Laure, Charles, Bernard, Geny, Cyril, Reboul, Claire, Arnaud, Claire, Dufour, Grégory, Meyer	No
Analysis of Syk/PECAM-1 signaling pathway in low shear stress induced atherosclerosis based on ultrasound imaging	Computer Methods and Programs in Biomedicine	https://doi.org/10.1016/j.cmpb.2021.105953	2021	Lianghua, Xia, Bo, Zhang, Yuqing, Sun, Bingguan, Chen, Zuoren, Yu	No

Title	Journal	Link	Publication date	References	Top Paper
Developmental origins of mechanical homeostasis in the aorta	Developmental Dynamics		2020	Sae II, Murtada, Yuki, Kawamura, Guangxin, Li, Martin A., Schwartz, George, Tellides, Jay D., Humphrey	No
Aortic Strain Correlates With Elastin Fragmentation in Fibrillin-1 Hypomorphic Mice	Circulation Reports	https://www.jstage.jst.go.jp/article/circrep/1/5/1_CR-18-0012/_article	2019	Jeff Z., Chen, Hisashi, Sawada, Jessica J., Moorleghen, Mackenzie, Weiland, Alan, Daugherty, Mary B., Sheppard	No
Ultrasound molecular imaging of atherosclerosis for early diagnosis and therapeutic evaluation through leucocyte-like multiple targeted microbubbles	Theranostics		2018	Fei, Yan, Yu, Sun, Yang, Mao, Meiyang, Wu, Zhiting, Deng, Shuai, Li, Xin, Liu, Li, Xue, Hairong, Zheng	No
TRPV5 attenuates abdominal aortic aneurysm in mice by regulating KLF4-dependent phenotype switch of aortic vascular smooth muscle cells	Archives of Biochemistry and Biophysics	https://doi.org/10.1016/j.abb.2020.108724	2021	Shuo, Wang, Xiaoxiang, Tian, Dan, Liu, Xiaolin, Zhang, Chenghui, Yan, Yaling, Han	No
Bone marrow-derived mesenchymal stem cells microvesicles stabilize atherosclerotic plaques by inhibiting NLRP3-mediated macrophage pyroptosis	Cell Biology International		2020	Yu, Lin, Meihan, Liu, Enqi, Chen, Wei, Jiang, Weidong, Shi, Zhiyuan, Wang	No
CFTR plays an important role in the regulation of vascular resistance and high-fructose/salt-diet induced hypertension in mice	Journal of Cystic Fibrosis	https://doi.org/10.1016/j.jcf.2020.11.014	2020	Ya Ping, Zhang, Lingyu Linda, Ye, Hong, Yuan, Dayue Darrel, Duan	No
Assessing model mismatch and model selection in a Bayesian uncertainty quantification analysis of a fluid-dynamics model of pulmonary blood circulation	Journal of The Royal Society Interface		2020	L. Mihaela, Paun, Mitchel J., Colebank, Mette S., Olufsen, Nicholas A., Hill, Dirk, Husmeier	No
A validated mouse model capable of recapitulating the protective effects of female sex hormones on ascending aortic aneurysms and dissections (AADs)	Physiological Reports		2020	Xiaoyan, Qi, Fen, Wang, Changzoon, Chun, Lennon, Saldarriaga, Zhisheng, Jiang, Eric Y., Pruitt, George J., Arnaoutakis, Gilbert R., Upchurch, Zhihua, Jiang	No
Thick PCL Fibers Improving Host Remodeling of PGS-PCL Composite Grafts Implanted in Rat Common Carotid Arteries	Small		2020	Jiayin, Fu, Michael, Wang, Iwijn, De Vlaminc, Yadong, Wang	No
Factor Xa inhibitor rivaroxaban suppresses experimental abdominal aortic aneurysm progression via attenuating aortic inflammation	Vascular Pharmacology		2020	Yong, Ding, Xu, Li, Min, Zhou, Liang, Cai, Hanfei, Tang, Tianchen, Xie, Zhenyu, Shi, Weiguo, Fu	No
Bimodal Imaging-Visible Nanomedicine Integrating CXCR4 and VEGFα Genes Directs Synergistic Reendothelialization of Endothelial Progenitor Cells	Advanced Science		2020	Bingbo, Yu, Bing, Dong, Jiang, He, Hui, Huang, Jinsheng, Huang, Yong, Wang, Jianwen, Liang, Jianning, Zhang, Yumin, Qiu, Jun, Shen, Xintao, Shuai, Jun, Tao, Wenhao, Xia	No
Inhibition of transforming growth factor-β signaling in myeloid cells ameliorates aortic aneurysmal formation in Marfan syndrome	PLoS ONE	http://dx.doi.org/10.1371/journal.pone.0239908	2020	Hironori, Hara, Sonoko, Maemura, Takayuki, Fujiwara, Norifumi, Takeda, Satoshi, Ishii, Hiroki, Yagi, Takaaki, Suzuki, Mutsuo, Harada, Haruhiro, Toko, Tsubasa, Kanaya, Hideaki, Ijichi, Harold L., Moses, Eiki, Takimoto, Hiroyuki, Morita, Hiroshi, Akazawa, Issei, Komuro	No
Vascular protective effect of aspirin and rivaroxaban upon endothelial denudation of the mouse carotid artery	Scientific Reports	https://doi.org/10.1038/s41598-020-76377-8	2020	T. G., Mastenbroek, M. F.A., Karel, M., Nagy, W., Chayoua, E. I.J., Korsten, D. M., Coenen, J., Debets, J., Konings, A. E., Brouns, P. J.A., Leenders, H., van Essen, R., van Oerle, S., Heitmeier, H. M., Spronk, M. J.E., Kuijpers, J. M.E.M., Cosemans	No

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Specific inhibition of SHP2 suppressed abdominal aortic aneurysm formation in mice by augmenting the immunosuppressive function of MDSCs	Life Sciences	https://doi.org/10.1016/j.lfs.2020.118751	2020	Yonggang, Lu, Qian, Ma, He, Tan, Xinxin, Li, Xue, Zhang, Yanqing, Tie	No
Effects of different positions of intravascular stent implantation in stenosed vessels on in-stent restenosis: An experimental and numerical simulation study	Journal of Biomechanics	https://doi.org/10.1016/j.jbiomech.2020.110089	2020	Shicheng, He, Wanling, Liu, Kai, Qu, Tieying, Yin, Juhui, Qiu, Yan, Li, Kunshan, Yuan, Haijun, Zhang, Guixue, Wang	No
Effects of Braiding Parameters on Tissue Engineered Vascular Graft Development	Advanced Healthcare Materials	https://onlinelibrary.wiley.com/doi/10.1002/adhm.202001093	2020	Jacob C., Zbinden, Kevin M., Blum, Alycia G., Berman, Abhay B., Ramachandra, Jason M., Szafron, Katherine E., Kerr, Jennifer L., Anderson, Gurmeet S., Sangha, Conner C., Earl, Noah R., Nigh, Gabriel J. M., Mirhaidari, James W., Reinhardt, Yu-Chun, Chang, Tai, Yi, Ryan, Smalley, Peter D., Gabriele, Jeremy J., Harris, Jay D., Humphrey, Craig J., Goergen, Christopher K., Breuer	No
Early Gestational Exposure to Inhaled Ozone Impairs Maternal Uterine Artery and Cardiac Function	Toxicological Sciences		2020	Marcus, Garcia, Raul, Salazar, Thomas, Wilson, Selita, Lucas, Guy, Herbert, Tamara, Young, Jessica, Begay, Jesse L, Denson, Katherine, Zychowski, Ryan, Ashley, Stephanie, Byrum, Samuel, Mackintosh, Barry E, Bleske, Andrew K, Ottens, Matthew J, Campen	No
Daphnetin suppresses experimental abdominal aortic aneurysms in mice via inhibition of aortic mural inflammation	Experimental and Therapeutic Medicine		2020	Shiyun, Xie, Li, Ma, Hongliang, Guan, Su, Guan, Lijuan, Wen, Chanchan, Han	No
Sex differences in the time course and mechanisms of vascular and cardiac aging in mice: role of the smooth muscle cell mineralocorticoid receptor	American Journal of Physiology-Heart and Circulatory Physiology	https://journals.physiology.org/doi/10.1152/ajpheart.00262.2020	2020	Jennifer J, DuPont, Seung Kyum, Kim, Rachel M, Kenney, Iris Z, Jaffe	No
Macrophage pyroptosis is mediated by immunoproteasome subunit β5i (LMP7) in abdominal aortic aneurysm	Biochemical and Biophysical Research Communications	https://doi.org/10.1016/j.bbrc.2020.09.082	2020	Xu, Zhang, Fangda, Li, Wei, Wang, Lei, Ji, Bo, Sun, Xue, Xiao, Xiaoxiao, Wang, Yuxin, Chen, Bao, Liu, Wei, Ye, Cui, Tian, Hongxia, Wang, Yuehong, Zheng	No
Potential role of intermittent functioning of baroreflexes in the etiology of hypertension in spontaneously hypertensive rats	JCI insight		2020	Feng, Gu, E. Benjamin, Randall, Steven, Whitesall, Kimber, Converso-Baran, Brian E., Carlson, Gregory D., Fink, Daniel E., Michele, Daniel A., Beard	No
Aortic Stiffness and Diastolic Dysfunction in Sprague Dawley Rats Consuming Short-Term Fructose Plus High Salt Diet	Integrated Blood Pressure Control	https://www.dovepress.com/aortic-stiffness-and-diastolic-dysfunction-in-sprague...	2020	Dragana, Komnenov, Peter E, Levanovich, Natalia, Perecki, Charles S, Chung, Noreen F, Rossi	No
In vivo measurement of flow-mediated vasodilation in living rats using high-resolution ultrasound	American Journal of Physiology - Heart and Circulatory Physiology		2008	Christian, Heiss, Richard E., Sievers, Nicolas, Amabile, Tony Y., Momma, Qiumei, Chen, Shobha, Natarajan, Yerem, Yeghiazarians, Matthew L., Springer	No
Functional Role of Second Heart Field-derived Smooth Muscle Cells in Thoracic Aortopathies in Mice	BioRx		2020	Hisashi, Sawada, Hideyuki, Higashi, Chen, Zhang, Yanming, Li, Yuriko, Katsumata, Stephanie, Morgan, Lang H, Lee, Sasha A, Singh, Jeff Z, Chen, Jessica J, Moorleghe, Deborah A, Howatt, Debra L, Rateri, Hong S, Lu, Ying H, Shen, Scott A, LeMaire, Masanori, Aikawa, Mark W, Majesky, Alan, Daugherty	No

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A single exposure to eucalyptus smoke sensitizes rats to the postprandial cardiovascular effects of a high carbohydrate oral load	Inhalation Toxicology	https://doi.org/10.1080/08958378.2020.1809572	2020	Brandi L., Martin, Leslie C., Thompson, Yong Ho, Kim, Samantha J., Snow, Mette C., Schladweiler, Pamela, Phillips, Molly, Harmon, Charly, King, Judy, Richards, Ingrid, George, W. Kyle, Martin, Najwa, Haykal-Coates, M. Ian, Gilmour, Urmila P., Kodavanti, Mehdi S., Hazari, Aimen K., Farraj	No
Artery to vein configuration of arteriovenous fistula improves hemodynamics to increase maturation and patency	Science Translational Medicine		2020	Hualong, Bai, Nirvana, Sadaghianloo, Jolanta, Gorecka, Shirley, Liu, Shun, Ono, Abhay B., Ramachandra, Sophie, Bonnet, Nathalie M., Mazure, Serge, Declémy, Jay D., Humphrey, Alan, Dardik	No
Platelet membrane-functionalized nanoparticles with improved targeting ability and lower hemorrhagic risk for thrombolysis therapy	Journal of Controlled Release	https://doi.org/10.1016/j.jconrel.2020.08.030	2020	Songli, Wang, Ruifeng, Wang, Nana, Meng, Haiyan, Guo, Sunyi, Wu, Xiaoyi, Wang, Jinyang, Li, Huan, Wang, Kuan, Jiang, Cao, Xie, Yu, Liu, Hao, Wang, Weiye, Lu	No
Age-dependent characterization of carotid and cerebral artery geometries in a transgenic mouse model of sickle cell anemia using ultrasound and microcomputed tomography	Blood Cells, Molecules, and Diseases	https://linkinghub.elsevier.com/retrieve/pii/S1079979620304058	2020	Christian P., Rivera, Li, Li, Shuangyi, Cai, Nui, Pei, George E., McAlear, Keval, Bollavaram, Oluwasanmi V., Ariyo, Victor O., Omojola, Hannah, Song, Andrea L., Alfonso, Wenchang, Tan, Yunlong, Huo, Manu O., Platt	No
A novel biodegradable external stent regulates vein graft remodeling via the Hippo-YAP and mTOR signaling pathways	Biomaterials	https://doi.org/10.1016/j.biomaterials.2020.120254	2020	Qi, Yang, Dong, Lei, Shixing, Huang, Yang, Yang, Chenyu, Jiang, Hongpeng, Shi, Wenyi, Chen, Qiang, Zhao, Zhengwei, You, Xiaofeng, Ye	No
Ultrasound Assessment of the Relation between Local Hemodynamic Parameters and Plaque Morphology	IEEE Access		2020	Lisheng, Xu, Yanling, Zhang, Long, Meng, Shuai, Li, Lili, Niu, Stephen E., Greenwald, Hui, Zhang, Lu, Wang	No
Fluid shear stress modulates endothelial inflammation by targeting LIMS2	Experimental Biology and Medicine		2020	Junyao, Wang, Shianjin, Zhang	No
Lin28a up-regulation is associated with the formation of restenosis via promoting proliferation and migration of vascular smooth muscle cells	Journal of Cellular and Molecular Medicine		2020	Zhiwei, Zou, Xiaojun, Zhou, Ruzhen, Zhang, Qian, Zhang, Shan, Jiang, Chunmei, Xu, Rui, Zhang, Tianyue, Xie, Huangao, Zhu, Piyan, Gong, Dongmei, Zhang, Huimei, Ma, Lin, Liao, Jianjun, Dong	No
GSK2593074A blocks progression of existing abdominal aortic dilation	JVS: Vascular Science	https://doi.org/10.1016/j.jvssci.2020.07.001	2020	Mitri K., Khoury, Ting, Zhou, Huan, Yang, Samantha R., Prince, Kartik, Gupta, Amelia R., Stranz, Qiwei, Wang, Bo, Liu	No
A mouse model of stenosis distal to an arteriovenous fistula recapitulates human central venous stenosis	JVS: Vascular Science	https://doi.org/10.1016/j.jvssci.2020.07.003	2020	Ryosuke, Taniguchi, Shun, Ono, Toshihiko, Isaji, Jolanta, Gorecka, Shin-Rong, Lee, Yutaka, Matsubara, Bogdan, Yatsula, Jun, Koizumi, Toshiya, Nishibe, Katsuyuki, Hoshina, Alan, Dardik	No
A bi-layered tubular scaffold for effective anti-coagulant in vascular tissue engineering	Materials and Design	https://doi.org/10.1016/j.matdes.2020.108943	2020	Wangchao, Yao, Hongbing, Gu, Tao, Hong, Yao, Wang, Sihao, Chen, Xiumei, Mo, Wenyao, Li, Chunsheng, Wang, Tonghe, Zhu, Shuyang, Lu	No
Hyaluronan promotes the regeneration of vascular smooth muscle with potent contractile function in rapidly biodegradable vascular grafts	Biomaterials	https://doi.org/10.1016/j.biomaterials.2020.120226	2020	Kang, Qin, Fei, Wang, Russell M.L., Simpson, Xueni, Zheng, He, Wang, Yanhua, Hu, Zhixian, Gao, Qingbo, Xu, Qiang, Zhao	No

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Slow degrading poly(glycerol sebacate) derivatives improve vascular graft remodeling in a rat carotid artery interposition model	Biomaterials	https://doi.org/10.1016/j.biomaterials.2020.120251	2020	Jiayin, Fu, Xiaochu, Ding, Chelsea E.T., Stowell, Yen-Lin, Wu, Yadong, Wang	No
Acute and chronic vascular effects of inhaled crotonaldehyde in mice: Role of TRPA1	Toxicology and Applied Pharmacology	https://doi.org/10.1016/j.taap.2020.115120	2020	Jordan, Lynch, Lexiao, Jin, Andre, Richardson, Ganapathy, Jagatheesan, Pawel, Lorkiewicz, Zhengzhi, Xie, Whitney S., Theis, Gregg, Shirk, Marina V., Malovichko, Aruni, Bhatnagar, Sanjay, Srivastava, Daniel J., Conklin	No
Ultrasound monitoring of magnet-guided delivery of mesenchymal stem cells labeled with magnetic lipid-polymer hybrid nanobubbles	Biomaterials Science	http://xlink.rsc.org/?DOI=D0BM00473A	2020	Bo, Zhang, Xinhai, Mo, Fei, Yu, Yuqin, Ma, Fei, Yan	No
Increased AT2R expression is induced by AT1R autoantibody via two axes. Klf-5/IRF-1 and circErbB4/miR-29a-5p, to promote VSMC migration	Cell Death and Disease	http://dx.doi.org/10.1038/s41419-020-2643-5	2020	Yan, Sun, Yang, Li, Meili, Wang, Mingming, Yue, Lina, Bai, Jingwei, Bian, Weiwei, Hao, Jing, Sun, Suli, Zhang, Huirong, Liu	No
Multimodality Imaging-Based Characterization of Regional Material Properties in a Murine Model of Aortic Dissection	Scientific Reports		2020	Matthew R., Bersi, Victor A., Acosta Santamaria, Karl, Marback, Paolo, Di Achille, Evan H., Phillips, Craig J., Goergen, Jay D., Humphrey, Stéphane, Avril	No
Human Umbilical Cord Mesenchymal Stem Cells Attenuate Abdominal Aortic Aneurysm Progression in Sprague Dawley Rats: Implication of Vascular Smooth Muscle Cell Phenotypic Modulation	Stem Cells and Development	https://www.liebertpub.com/doi/10.1089/scd.2020.0058	2020	Hao, Wen, Mingjing, Wang, Shiqiang, Gong, Xintong, Li, Jinze, Meng, Jie, Wen, Yifei, Wang, Shuqing, Zhang, Shijie, Xin	No
Improvement of Endothelial Dysfunction of Berberine in Atherosclerotic Mice and Mechanism Exploring through TMT-Based Proteomics	Oxidative Medicine and Cellular Longevity	https://www.hindawi.com/journals/omcl/2020/8683404/	2020	Wangxiao, Tan, Yu, Wang, Kaiyue, Wang, Siwei, Wang, Jinghua, Liu, Xiaoyan, Qin, Yongna, Dai, Xiaoying, Wang, Xiumei, Gao	No
Nck1, But Not Nck2, Mediates Disturbed Flow-Induced p21-Activated Kinase Activation and Endothelial Permeability	Journal of the American Heart Association	https://www.ahajournals.org/doi/10.1161/JAHA.120.016099	2020	Mabruka, Alfaiddi, Umesh, Bhattacharai, A. Wayne, Orr	No
miR-374b-5p is increased in deep vein thrombosis and negatively targets IL-10	Journal of Molecular and Cellular Cardiology	https://doi.org/10.1016/j.yjmcc.2020.05.011	2020	Yunhong, Zhang, Xiuming, Miao, Zhen, Zhang, Ran, Wei, Shangwen, Sun, Gang, Liang, Huihan, Li, Chu, Chu, Lin, Zhao, Xiaoxiao, Zhu, Qiang, Guo, Bin, Wang, Xia, Li	No
AT2R agonist NP-6A4 mitigates aortic stiffness and proteolytic activity in mouse model of aneurysm	Journal of Cellular and Molecular Medicine	https://onlinelibrary.wiley.com/doi/abs/10.1111/jcmm.15342	2020	Neekun, Sharma, Anthony M., Belenchia, Ryan, Toedebusch, Lakshmi, Pulakat, Chetan P., Hans	No
Cancer During Pregnancy: The Role of Vascular Toxicity in Chemotherapy-Induced Placental Toxicity	Cancers	https://www.mdpi.com/2072-6694/12/5/1277	2020	Hadas, Bar-Joseph, Fedro Alessandro, Peccatori, Tal, Goshen-Lago, Fulvia Milena, Cribiù, Giovanna, Scarfone, Irit, Miller, Luba, Nemerovsky, Mattan, Levi, Ruth, Shalgi, Irit, Ben-Aharon	No
Dermal exposure to the UV filter benzophenone-3 during early pregnancy affects fetal growth and sex ratio of the progeny in mice	Archives of Toxicology	http://link.springer.com/10.1007/s00204-020-02776-5	2020	Clarisa Guillermina, Santamaria, Nicole, Meyer, Anne, Schumacher, Maria Laura, Zencussen, Carla Mariela, Teglia, Maria Julia, Culzoni, Ana Claudia, Zencussen, Horacio Adolfo, Rodriguez	No

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Natriuretic Peptide Receptor 2 Locus Contributes to Carotid Remodeling	Journal of the American Heart Association	https://www.ahajournals.org/doi/10.1161/JAHA.119.014257	2020	Vyacheslav A, Korshunov, Elaine M, Smolock, Mary E., Wines-Samuelson, Abrar, Faiyaz, Deanne M, Mickelsen, Breandan, Quinn, Calvin, Pan, George J, Dugbartey, Chen, Yan, Marvin M, Doyley, Aldons J, Lulis, Bradford C, Berk	No
Photochemical Tissue Passivation of Arteriovenous Grafts Prevents Long-term Development of Intimal Hyperplasia in a Swine Model	Journal of Surgical Research	https://doi.org/10.1016/j.jss.2020.03.006	2020	Rachel L, Goldstein, Michael C., McCormack, Srivalleesha, Mallidi, Gem, Runyan, Mark A, Randolph, William G., Austen, Robert W, Redmond	No
Resolvin D4 attenuates the severity of pathological thrombosis in mice	Blood	https://ashpublications.org/blood/article/134/17/1458/374930/Resolvin-D4-attenu...	2019	Deya, Cherpokova, Charlotte C., Jouvène, Stephania, Liberos, Elise P., DeRoo, Long, Chu, Xavier, de la Rosa, Paul C., Norris, Denisa D., Wagner, Charles N., Serhan	No
"Females Are Not Just 'Protected' Males": Sex-Specific Vulnerabilities in Placenta and Brain after Prenatal Immune Disruption	eneuro	http://eneuro.org/lookup/doi/10.1523/ENEURO.0358-19.2019	2019	Amy E., Braun, Pamela A., Carpentier, Brooke A., Babineau, Aditi R., Narayan, Michelle L., Kielhold, Hyang Mi, Moon, Archana, Shankar, Jennifer, Su, Vidya, Saravanapandian, Ursula, Haditsch, Theo D., Palmer	No
In vivo engineered extracellular matrix scaffolds with instructive niches for oriented tissue regeneration	Nature Communications	http://dx.doi.org/10.1038/s41467-019-12545-3	2019	Meifeng, Zhu, Wen, Li, Xianhao, Dong, Xingyu, Yuan, Adam C., Midgley, Hong, Chang, Yuhao, Wang, Haoyu, Wang, Kai, Wang, Peter X., Ma, Hongjun, Wang, Deling, Kong	No
Design and characterization of a porous pouch to prevent peritoneal adhesions during in vivo vascular graft maturation	Journal of the Mechanical Behavior of Biomedical Materials	https://doi.org/10.1016/j.jmbbm.2019.103461	2020	Mozhgan, Shojae, Mahyar, Sameti, Kranthi, Vuppururi, Matthew, Ziff, Alessandra, Carriero, Chris A., Bashur	No
Hyperdynamic circulatory syndrome in a mouse model transgenic for SerpinB3	Annals of Hepatology	https://doi.org/10.1016/j.aohep.2019.06.021	2020	Gianmarco, Villano, Alberto, Verardo, Andrea, Martini, Silvia, Brocco, Paola, Pesce, Erica, Novo, Maurizio, Parola, David, Sacerdoti, Marco, Di Pascoli, Marny, Fedrigo, Chiara, Castellani, Annalisa, Angelini, Patrizia, Pontisso, Massimo, Bolognesi	No
Negative regulation of eNOS-NO signaling by over-SUMOylation of PPARγ contributes to insulin resistance and dysfunction of vascular endothelium in rats	Vascular Pharmacology	https://doi.org/10.1016/j.vph.2019.106597	2019	Wanwan, Yuan, Cong, Ma, Yumeng, Zhou, Mengxi, Wang, Guohua, Zeng, Qiren, Huang	No
Bilayered Polymeric Micro- and Nanofiber Vascular Grafts as Abdominal Aorta Replacements: Long-Term in Vivo Studies in a Rat Model	ACS Applied Bio Materials	https://pubs.acs.org/doi/10.1021/acsabm.9b00641	2019	Wen, Li, Pingli, Wu, Yu, Zhang, Adam C., Midgley, Xingyu, Yuan, Yifan, Wu, Lina, Wang, Zhihong, Wang, Meifeng, Zhu, Deling, Kong	No
Behavior, body composition, and vascular phenotype of homocystinuric mice on methionine-restricted diet or enzyme replacement therapy	The FASEB Journal	https://onlinelibrary.wiley.com/doi/abs/10.1096/fj.201901203R	2019	Tomas, Majtan, Insun, Park, Allaura, Cox, Brian R., Branchford, Jorge, Paola, Erez M., Bublil, Jan P., Kraus	No
Dysbiotic 1-carbon metabolism in cardiac muscle remodeling	Journal of Cellular Physiology	https://onlinelibrary.wiley.com/doi/abs/10.1002/jcp.29163	2020	Akash K., George, Mahavir, Singh, S., Pushpakumar, Rubens P., Homme, Shanna J., Hardin, Suresh C., Tyagi	No
Pioglitazone downregulates Twist-1 expression in the kidney and protects renal function of Zucker diabetic fatty rats	Biomedicine & Pharmacotherapy	https://doi.org/10.1016/j.biopha.2019.109346	2019	Zijian, Wang, Qingbo, Liu, Wendi, Dai, Bing, Hua, Hongwei, Li, Weiping, Li	No

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Vimentin regulates Notch signaling strength and arterial remodeling in response to hemodynamic stress	Scientific Reports	http://www.nature.com/articles/s41598-019-48218-w	2019	Nicole C. A., van Engeland, Freddy, Suarez Rodriguez, Adolfo, Rivero-Müller, Tommaso, Ristori, Camille L., Duran, Oscar M. J. A., Stassen, Daniel, Antfolk, Rob C. H., Driessen, Saku, Ruohonen, Suvi T., Ruohonen, Salla, Nuutinen, Eriika, Savontaus, Sandra, Loerakker, Kayla J., Bayless, Marika, Sjöqvist, Carljin V. C., Bouten, John E., Eriksson, Cecilia M., Sahlgren	No
Aortic pathology from protein kinase G activation is prevented by an antioxidant vitamin B12 analog	Nature Communications	http://dx.doi.org/10.1038/s41467-019-11389-1	2019	Gerburg K., Schwaerzer, Hema, Kalyanaraman, Darren E., Casteel, Nancy D., Dalton, Yusu, Gu, Seunghoe, Lee, Shunhui, Zhuang, Nisreen, Wahwah, Jan M., Schilling, Hemal H., Patel, Qian, Zhang, Ayako, Makino, Dianna M., Milewicz, Kirk L., Peterson, Gerry R., Boss, Renate B., Pilz	No
Elevated luteinizing hormone contributes to atherosclerosis formation by inhibiting nitric oxide synthesis via PI3K/Akt pathway	Vascular Pharmacology	https://doi.org/10.1016/j.vph.2019.106582	2019	Xuan, Meng, Xiaosa, Li, Xingyan, Xu, Ping, Li, Yiwen, Chen, Xiaodong, Fu, Xiaoyang, Xu	No
Mitochondrial transplantation ameliorates acute limb ischemia	Journal of Vascular Surgery	https://doi.org/10.1016/j.jvs.2019.03.079	2020	Arzoo, Orfany, Carlos Galán, Arriola, Ilias P., Doulamis, Alvisé, Guariento, Giovanna, Ramirez-Barbieri, Kamila, Moskowitsova, Borami, Shin, David, Blitzer, Caitlyn, Rogers, Pedro J., del Nido, James D., McCully	No
Regulation of the inflammatory response by vascular grafts modified with Aspirin-Triggered Resolvin D1 promotes blood vessel regeneration	Acta Biomaterialia	https://doi.org/10.1016/j.actbio.2019.07.037	2019	Jie, Shi, Xiangyun, Zhang, Li, Jiang, Lin, Zhang, Yunsheng, Dong, Adam C., Midgley, Deling, Kong, Shufang, Wang	No
Inhibition of the Akt1-mTORC1 Axis Alters Venous Remodeling to Improve Arteriovenous Fistula Patency	Scientific Reports	http://www.nature.com/articles/s41598-019-47542-5	2019	Xiangjiang, Guo, Arash, Fereydooni, Toshihiko, Isaji, Jolanta, Gorecka, Shirley, Liu, Haidi, Hu, Shun, Ono, Michelle, Alozie, Shin Rong, Lee, Ryosuke, Taniguchi, Bogdan, Yatsula, Naiem, Nassiri, Lan, Zhang, Alan, Dardik	No
Vascular impact of quercetin administration in association with moderate exercise training in experimental type 1 diabetes	Revista Romana de Medicina de Laborator	http://content.sciendo.com/view/journals/rmlm/27/3/article-p269.xml	2019	Irina Camelia, Chis, Mihai, Socaci, Remus, Moldovan, Simona, Clichici	No
Increased mitochondrial NADPH oxidase 4 (NOX4) expression in aging is a causative factor in aortic stiffening	Redox Biology	https://doi.org/10.1016/j.redox.2019.101288	2019	Chandrika, Canugovi, Mark D., Stevenson, Aleksandr E., Vendrov, Takayuki, Hayami, Jacques, Robidoux, Han, Xiao, You-Yi, Zhang, Daniel T., Eitzman, Marschall S., Runge, Nageswara R., Madamanchi	No
Scavenger receptor A1 attenuates aortic dissection via promoting efferocytosis in macrophages	Biochemical Pharmacology	https://doi.org/10.1016/j.bcp.2019.07.027	2019	Zhi, Zhang, Yunlong, Jiang, Zhongqiu, Zhou, Jianan, Huang, Shichao, Chen, Wenying, Zhou, Qing, Yang, Hui, Bai, Hanwen, Zhang, Jingjing, Ben, Xudong, Zhu, Xiaoyu, Li, Qi, Chen	No
Loss of flow responsive Tie1 results in impaired Aortic valve remodeling	Developmental Biology	https://linkinghub.elsevier.com/retrieve/pii/S0012160619301812	2019	Xianghu, Qu, Kate, Violette, M.K., Sewell-Loftin, Jonathan, Soslow, LeShana, Saint-Jean, Robert B., Hinton, W. David, Merryman, H. Scott, Baldwin	No

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Hypoxia inducible factor 1α in vascular smooth muscle cells promotes angiotensin II-induced vascular remodeling via activation of CCL7-mediated macrophage recruitment	Cell Death & Disease	http://www.nature.com/articles/s41419-019-1757-0	2019	Dan, Qi, Ming, Wei, Shiyu, Jiao, Yanting, Song, Xia, Wang, Guomin, Xie, Joseph, Taranto, Ye, Liu, Yan, Duan, Baoqi, Yu, Huihua, Li, Yatrik M., Shah, Qingbo, Xu, Jie, Du, Frank J., Gonzalez, Aijuan, Qu	No
Assessment of Age-related Oxygenation Changes in Calf Skeletal Muscle by Photoacoustic Imaging: A Potential Tool for Peripheral Arterial Disease	Ultrasonic Imaging	http://journals.sagepub.com/doi/10.1177/0161734619862287	2019	Brooke M., Kirkham, Susan M., Schultz, Khalid, Ashi, Chandra M., Sehgal	No
The flagellin-TLR5-Nox4 axis promotes the migration of smooth muscle cells in atherosclerosis	Experimental & Molecular Medicine	http://dx.doi.org/10.1038/s12276-019-0275-6	2019	Jinoh, Kim, Jung-Yeon, Yoo, Jung Min, Suh, Sujin, Park, Dongmin, Kang, Hanjoong, Jo, Yun Soo, Bae	No
Effects of Iliac Stenosis on Abdominal Aortic Aneurysm Formation in Mice and Humans	Journal of Vascular Research	https://www.karger.com/Article/FullText/501312	2019	Gurneet S., Sangha, Albert, Busch, Andrea, Acuna, Alycia G., Berman, Evan H., Phillips, Matthias, Trenner, Hans-Henning, Eckstein, Lars, Maegdefessel, Craig J., Goergen	No
Hypoxia-Induced miR-210 Is Necessary for Vascular Regeneration upon Acute Limb Ischemia	International Journal of Molecular Sciences	https://www.mdpi.com/1422-0067/21/1/129	2019	Germana, Zaccagnini, Biagina, Maimone, Paola, Fuschi, Marialucia, Longo, Daniel, Da Silva, Matteo, Carrara, Christine, Voellenkle, Laura, Perani, Antonio, Esposito, Carlo, Gaetano, Fabio, Martelli	No
Loss of ADAMTS19 causes progressive non-syndromic heart valve disease	Nature Genetics	http://www.nature.com/articles/s41588-019-0536-2	2020	Florian, Wünnemann, Asaf, Ta-Shma, Christoph, Preuss, Severine, Leclerc, Patrick Piet, van Vliet, Andrea, Oneglia, Maryse, Thibeault, Emily, Nordquist, Joy, Lincoln, Franka, Scharfenberg, Christoph, Becker-Pauly, Philipp, Hofmann, Kirstin, Hoff, Enrique, Audain, Hans-Heiner, Kramer, Wojciech, Makalowski, Amiram, Nir, Sebastian S., Gerety, Matthew, Hurler, Johanna, Comes, Anne, Fournier, Hanna, Osinska, Jeffrey, Robins, Michel, Pucéat, Orly, Elpeleg, Marc-Phillip, Hitz, Gregor, Andelfinger	No
Mitochondria-targeted antioxidant mitoquinone attenuates liver inflammation and fibrosis in cirrhotic rats	American Journal of Physiology-Gastrointestinal and Liver Physiology	https://www.physiology.org/doi/10.1152/ajpgi.00135.2019	2020	Saadet, Turkseven, Massimo, Bolognesi, Alessandra, Brocca, Paola, Pesce, Paolo, Angeli, Marco, Di Pascoli	No
Fetal growth outcomes following peri-implantation exposure of Long-Evans rats to noise and ozone differ by sex	Biology of Sex Differences	https://bsd.biomedcentral.com/articles/10.1186/s13293-019-0270-6	2019	Colette N., Miller, Urmila P., Kodavanti, Erica J., Stewart, Mette C., Schladerweil, Judy H., Richards, Samantha J., Snow, Andres R., Henriquez, Wendy M., Oshiro, Aimen K., Farraj, Mehdi S., Hazari, Janice A., Dye	No
Different degradation rates of nanofiber vascular grafts in small and large animal models	Journal of Tissue Engineering and Regenerative Medicine	https://onlinelibrary.wiley.com/doi/abs/10.1002/term.2977	2020	Takuma, Fukunishi, Chin Siang, Ong, Pooja, Yesantharao, Cameron A., Best, Tai, Yi, Huaitao, Zhang, Gunnar, Mattson, Joseph, Boktor, Kevin, Nelson, Toshiharu, Shinoka, Christopher K., Breuer, Jed, Johnson, Narutoshi, Hibino	No

Title	Journal	Link	Publication date	References	Top Paper
BOLD-MRI demonstrates acute placental and fetal organ hypoperfusion with fetal brain sparing in response to phenylephrine but not ephedrine	Placenta	https://doi.org/10.1016/j.placenta.2019.11.006	2020	Joel, Shapiro, Yehuda, Ginosar, Yuval, Gielchinsky, Uriel, Elchalal, Zohar, Bromberg, Nathalie, Corchia-Nachmanson, Rinat, Abramovitch	No
Trophoblast-induced spiral artery remodelling and uteroplacental haemodynamics in pregnant rats with increased blood pressure induced by heme oxygenase inhibition	Placenta	https://linkinghub.elsevier.com/retrieve/pii/S0143400419307076	2020	L., Oltra, V., Reverte, B., Garcés, G., Li Volti, J.M., Moreno, F.J., Salazar, M.T., Linás	No
17-Hydroxyprogesterone caproate improves T cells and NK cells in response to placental ischemia; new mechanisms of action for an old drug	Pregnancy Hypertension	https://doi.org/10.1016/j.preghy.2019.11.005	2020	Jamil T., Elfarrar, Jesse N., Cottrell, Denise C., Cornelius, Mark W., Cunningham, Jessica L., Faulkner, Tarek, Ibrahim, Babbette, Lamarca, Lorena M., Amaral	No
Activated Endothelial TGFβ1 Signaling Promotes Venous Thrombus Nonresolution in Mice Via Endothelin-1	Circulation Research	https://www.ahajournals.org/doi/10.1161/CIRCRESAHA.119.315259	2020	Magdalena L., Bochenek, Christiane, Leidinger, Nico S., Rosinus, Rajinikanth, Gogiraju, Stefan, Guth, Lukas, Hohobhm, Kerstin, Jurk, Eckhard, Mayer, Thomas, Münzel, Mareike, Lankeit, Markus, Bosmann, Stavros, Konstantinides, Katrin, Schäfer	No
Evolution of metallic cardiovascular stent materials: A comparative study among stainless steel, magnesium and zinc	Biomaterials	https://doi.org/10.1016/j.biomaterials.2019.119641	2020	Jiayin, Fu, Yingchao, Su, Yi-Xian, Qin, Yufeng, Zheng, Yadong, Wang, Donghui, Zhu	No
Intermedin 1-53 Ameliorates Homocysteine-Promoted Atherosclerotic Calcification by Inhibiting Endoplasmic Reticulum Stress	Journal of Cardiovascular Pharmacology and Therapeutics	http://journals.sagepub.com/doi/10.1177/1074248419885633	2020	Jin-Ling, Ren, Yue-Long, Hou, Xian-Qiang, Ni, Qing, Zhu, Yao, Chen, Lin-Shuang, Zhang, Xin, Liu, Chang-Ding, Xue, Ning, Wu, Yan-Rong, Yu, Chao-Shu, Tang, Zhong-Ping, Ning, San-Bao, Chai, Yong-Fen, Qi	No
Medial calcification in the arterial wall of smooth muscle cell-specific Smpd1 transgenic mice: A ceramide-mediated vasculopathy	Journal of Cellular and Molecular Medicine	https://onlinelibrary.wiley.com/doi/abs/10.1111/jcmm.14761	2020	Owais M., Bhat, Xinxu, Yuan, Chad, Cain, Fadi N., Salloum, Pin-Lan, Li	No
Increased uterine artery blood flow in hypoxic murine pregnancy is not sufficient to prevent fetal growth restriction†	Biology of Reproduction	https://academic.oup.com/biolreprod/article/102/3/660/5618863	2020	Sydney L., Lane, Alexandra S., Doyle, Elise S., Bales, Ramón A., Lorca, Colleen G., Julian, Lorna G., Moore	No
Pigment Epithelial-Derived Factor Deficiency Accelerates Atherosclerosis Development via Promoting Endothelial Fatty Acid Uptake in Mice With Hyperlipidemia	Journal of the American Heart Association	https://www.ahajournals.org/doi/10.1161/JAHA.119.013028	2019	Haiping, Wang, Yanfang, Yang, Ming, Yang, Xinghui, Li, Jing, Tan, Yandi, Wu, Yuling, Zhang, Yuanlong, Li, Bo, Hu, Shijie, Deng, Fengmin, Yang, Saifei, Gao, Hui, Li, Zhenyu, Yang, Hui, Chen, Weibin, Cai	No
Mechanism of angiogenesis promotion with Shexiang Baoxin Pills by regulating function and signaling pathway of endothelial cells through macrophages	Atherosclerosis	https://doi.org/10.1016/j.atherosclerosis.2019.11.005	2020	Jiange, Zhang, Qianfei, Cui, Yiran, Zhao, Runan, Guo, Changsen, Zhan, Peng, Jiang, Pengwei, Luan, Pei, Zhang, Feiyun, Wang, Liuqing, Yang, Xiyang, Yang, Yulan, Xu	No
Cell proliferation detected using [18F]FLT PET/CT as an early marker of abdominal aortic aneurysm	Journal of Nuclear Cardiology	https://doi.org/10.1007/s12350-019-01946-y	2019	Richa, Gandhi, Christopher, Cawthorne, Lucinda J. L., Craggs, John D., Wright, Juozas, Domarkas, Ping, He, Joanna, Koch-Paszkowski, Michael, Shires, Andrew F., Scarsbrook, Stephen J., Archibald, Charalampos, Tsoumpas, Marc A., Bailey	No

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Sex-specific differences in endoplasmic reticulum aminopeptidase 1 modulation influence blood pressure and renin-angiotensin system responses	JCI Insight	https://insight.jci.org/articles/view/129615	2019	Sanjay, Ranjit, Jian Yao, Wong, Jia W, Tan, Chee, Sin Tay, Jessica M, Lee, Kelly, Yin Han Wong, Luminita H, Pojoga, Danielle L, Brooks, Amanda E, Garza, Stephen A, Maris, Isis Akemi, Katayama, Jonathan S., Williams, Alicia, Rivera, Gail K, Adler, Gordon H, Williams, Jose R, Romero	No
PKM2 Activator TEPP-46 Attenuates Thoracic Aortic Aneurysm and Dissection by Inhibiting NLRP3 Inflammasome-Mediated IL-1β Secretion	Journal of Cardiovascular Pharmacology and Therapeutics	http://journals.sagepub.com/doi/10.1177/1074248420919966	2020	Sheng, Le, Hao, Zhang, Xiaofan, Huang, Shu, Chen, Jia, Wu, Shanshan, Chen, XiangChao, Ding, Shanshan, Chen, Jing, Zhao, Heng, Xu, Jikai, Cui, Yanqiang, Zou, Jizhang, Yu, Lang, Jiang, Jie, Wu, Ping, Ye, Jiahong, Xia	No
Non-invasive ultrasound detection of cerebrovascular changes in a mouse model of TBI	Journal of Neurotrauma	https://www.liebertpub.com/doi/10.1089/neu.2019.6872	2020	Joe, Steinman, Lindsay S., Cahill, Greg, Stortz, Christopher K., Macgowan, Bojana, Stefanovic, John G., Sled	No
Melatonin protects against thoracic aortic aneurysm and dissection through SIRT1-dependent regulation of oxidative stress and vascular smooth muscle cell loss	Journal of Pineal Research	https://onlinelibrary.wiley.com/doi/abs/10.1111/jpi.12661	2020	Lin, Xia, Chang, Sun, Hanzhao, Zhu, Menggen, Zhai, Liyun, Zhang, Liqing, Jiang, Peng, Hou, Junfeng, Li, Kaifeng, Li, Zhenhua, Liu, Buyang, Li, Xiaowu, Wang, Wei, Yi, Hongliang, Liang, Zhenxiao, Jin, Jian, Yang, Dinghua, Yi, Jincheng, Liu, Shiqiang, Yu, Weixun, Duan	No
Targeted Repair of Vascular Injury by Adipose-Derived Stem Cells Modified with P-Selectin Binding Peptide	Advanced Science	https://onlinelibrary.wiley.com/doi/abs/10.1002/adv.201903516	2020	Hongyu, Yan, Xingyan, Mi, Adam C., Midgley, Xinchun, Du, Ziqi, Huang, Tingting, Wei, Ruihua, Liu, Tengzhi, Ma, Dengke, Zhi, Dashuai, Zhu, Ting, Wang, Guowei, Feng, Ying, Zhao, Weiye, Zhang, Ju, He, Meifeng, Zhu, Deling, Kong, Kai, Wang	No
Motor transmission defects with sex differences in a new mouse model of mild spinal muscular atrophy	EBioMedicine	https://linkinghub.elsevier.com/retrieve/pii/S2352396420301250	2020	Marc-Olivier, Deguise, Yves, De Repentigny, Alexandra, Tierney, Ariane, Beauvais, Jean, Michaud, Lucia, Chehade, Mohamed, Thabet, Brittany, Paul, Aoife, Reilly, Sabrina, Gagnon, Jean-Marc, Renaud, Rashmi, Kothary	No
Exercise preconditioning protects against acute cardiac injury induced by lipopolysaccharide through general control nonderepressible 2 kinase	International Heart Journal		2020	Zhong Guang, Sun, Guo, Lu, Lin Lin, Zhao, Li Zhen, Zhang, Ai, Li, Jing, Jing, Xin, Xu	No
Assessment of ICAM-1 N-glycoforms in mouse and human models of endothelial dysfunction	PLOS ONE	http://dx.doi.org/10.1371/journal.pone.0230358	2020	Kellie, Regal-McDonald, Maheshika, Somarathna, Timmy, Lee, Silvio H., Litovsky, Jarrod, Barnes, J. M., Peretik, J. G., Traylor, A. Wayne, Orr, Rakesh P., Patel	No
Persistence of Intraluminal Thrombus Makes Saccular Aneurysm More Biologically Active than Fusiform in an Experimental Rat Model	Journal of Vascular Research	https://www.karger.com/Article/FullText/506159	2020	Harry, Etienne, Clément, Journée, Aymeric, Rouchaud, Jean, Senemaud, Liliane, Louedec, Quentin, Pellenc, Raphaël, Coscas, Laurent, Gouya, Sébastien, Dupont, Jean-Baptiste, Michel	No

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Therapeutic Antibody Against Phosphorylcholine Preserves Coronary Function and Attenuates Vascular 18F-FDG Uptake in Atherosclerotic Mice	JACC: Basic to Translational Science	https://linkinghub.elsevier.com/retrieve/pii/S2452302X20300206	2020	Mia, Ståhle, Johanna M.U., Silvola, Sanna, Hellberg, Margreet, de Vries, Paul H.A., Quax, Jeffrey, Kroon, Petteri, Rinne, Alwin, de Jong, Heidi, Liljenbäck, Nina, Savisto, Anna, Wickman, Erik S.G., Stroes, Seppo, Ylä-Herttuala, Pekka, Saukko, Tommy, Abrahamsson, Knut, Pettersson, Juhani, Knuuti, Anne, Roivainen, Antti, Saraste	No
Runx2 (Runt-Related Transcription Factor 2)-Mediated Microcalcification Is a Novel Pathological Characteristic and Potential Mediator of Abdominal Aortic Aneurysm	Arteriosclerosis, Thrombosis, and Vascular Biology	https://www.ahajournals.org/doi/10.1161/ATVBAHA.119.314113	2020	Zhiqing, Li, Zuoquan, Zhao, Zeyu, Cai, Yong, Sun, Li, Li, Fang, Yao, Liu, Yang, Yuan, Zhou, Haibo, Zhu, Yi, Fu, Li, Wang, Wei, Fang, Yabing, Chen, Wei, Kong	No
Label-free photoacoustic and ultrasound imaging for murine atherosclerosis characterization	APL Bioengineering	http://aip.scitation.org/doi/10.1063/1.5142728	2020	Gurneet S, Sangha, Craig J, Goergen	No
Intravenous Administration of Allogenic Cell-Derived Microvesicles of Healthy Origins Defends Against Atherosclerotic Cardiovascular Disease Development by a Direct Action on Endothelial Progenitor Cells	Cells	http://www.ncbi.nlm.nih.gov/pubmed/32059493	2020	Nicoleta, Alexandru, Eugen, Andrei, Florentina, Safciuc, Emanuel, Dragan, Ana Maria, Balahura, Elisabeta, Badila, Adriana, Georgescu	No
Effects of Klotho supplementation on hyperoxia-induced renal injury in a rodent model of postnatal nephrogenesis	Pediatric Research	http://www.nature.com/articles/s41390-020-0803-z	2020	Mohammed Farhan, Ali, Sunil Kumar Bathally, Venkatarayappa, Merline, Benny, Claudia, Rojas, Keyvan, Yousefi, Lina A., Shehadeh, Shathiyah, Kulandavelu, Mayank, Sharma, Naimeh, Da Silva, Michael, Freundlich, Carolyn L., Abitbol, Marissa J., DeFreitas, Karen C., Young	No
Management of metabolic syndrome and reduction in body weight in type II diabetic mice by inhibiting glycosphingolipid synthesis	Biochemical and Biophysical Research Communications	https://doi.org/10.1016/j.bbrc.2020.02.104	2020	Subroto, Chatterjee, Lucy, Zheng, Sijia, Ma, Djahida, Bedja, Veera Venkata Ratnam, Bandaru, Grace, Kim, Alexa B., Rangelcroft, Domenica, Iocco, Sean A., Campbell	No
Measurement of Pulse Propagation Velocity, Distensibility and Strain in an Abdominal Aortic Aneurysm Mouse Model	Journal of Visualized Experiments	https://www.jove.com/video/60515/measurement-pulse-propagation-velocity-distens...	2020	Neekun, Sharma, Zhe, Sun, Michael A., Hill, Chetan P., Hans	No
Abnormal Lysosomal Positioning and Small Extracellular Vesicle Secretion in Arterial Stiffening and Calcification of Mice Lacking Mucopolin 1 Gene	International Journal of Molecular Sciences	https://www.mdpi.com/1422-0067/21/5/1713	2020	Owais M., Bhat, Xinxu, Yuan, Sarah, Camus, Fadi N., Salloum, Pin-Lan, Li	No
Construction of vascular graft with circumferentially oriented microchannels for improving artery regeneration	Biomaterials	https://doi.org/10.1016/j.biomaterials.2020.119922	2020	Pingli, Wu, Lina, Wang, Wen, Li, Yu, Zhang, Yifan, Wu, Dengke, Zhi, Hongjun, Wang, Lianrong, Wang, Deling, Kong, Meifeng, Zhu	No
A durable murine model of spleen transplantation with arterial and venous anastomoses	Scientific Reports	http://www.nature.com/articles/s41598-020-60983-7	2020	Jose-Luiz, Figueiredo, Fernando, Santa-Cruz, José Luiz, Lima-Filho, Ingo, Hilgendorf, Masanori, Aikawa, Mikael J., Pittet, Matthias, Narendorf, Ralph, Weissleder, Filip K., Swirski, Clinton S., Robbins	No
mTORC1 Deficiency Modifies Volume Homeostatic Responses to Dietary Sodium in a Sex-Specific Manner	Endocrinology	https://academic.oup.com/endo/advance-article/doi/10.1210/endo/bqaa041/5802448	2020	Danielle L, Brooks, Amanda E, Garza, Ezgi, Caliskan Guzelce, Shadi K, Gholami, Thitinan, Treearanu wattana, Stephen, Maris, Sanjay, Ranjit, Chee Sin, Tay, Jessica M, Lee, Jose R, Romero, Gail K, Adler, Luminita H, Pojoga, Gordon H, Williams	No

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Effects of the different-sized external stents on vein graft intimal hyperplasia and inflammation	Annals of Translational Medicine	http://atm.amegroups.com/article/view/36520/html	2020	Qi, Yang, Dong, Lei, Shixing, Huang, Yi, Yang, Yang, Yang, Xiaofeng, Ye, Zhengwei, You, Qiang, Zhao	No
Tissue-Engineered Vascular Grafts with Advanced Mechanical Strength from Human iPSCs	Cell Stem Cell	https://doi.org/10.1016/j.stem.2019.12.012	2020	Jiesi, Luo, Lingfeng, Qin, Liping, Zhao, Liqiong, Gui, Matthew W., Ellis, Yan, Huang, Mehmet H., Kural, J. Alexander, Clark, Shun, Ono, Juan, Wang, Yifan, Yuan, Shang-Min, Zhang, Xiaoqiang, Cong, Guangxin, Li, Muhammad, Riaz, Colleen, Lopez, Akitsu, Hotta, Stuart, Campbell, George, Tellides, Alan, Dardik, Laura E., Niklason, Yibing, Qyang	No
Local Delivery of Dual MicroRNAs in Trilayered Electrospun Grafts for Vascular Regeneration	ACS Applied Materials & Interfaces	https://pubs.acs.org/doi/10.1021/acsami.9b19452	2020	Meiling, Wen, Dengke, Zhi, Lina, Wang, Ce, Cui, Ziqi, Huang, Yunhui, Zhao, Kai, Wang, Deling, Kong, Xiaoyan, Yuan	No
IKK Epsilon Deficiency Attenuates Angiotensin II-Induced Abdominal Aortic Aneurysm Formation in Mice by Inhibiting Inflammation, Oxidative Stress, and Apoptosis	Oxidative Medicine and Cellular Longevity	https://www.hindawi.com/journals/omcl/2020/3602824/	2020	Hao, Chai, Zhonghao, Tao, Yongchao, Qi, HaoYu, Qi, Wen, Chen, YueYue, Xu, LeiYang, Zhang, HongWei, Chen, Xin, Chen	No
Intrauterine exposure to chronic hypoxia in the rat leads to progressive diastolic function and increased aortic stiffness from early postnatal developmental stages	Physiological Reports	https://onlinelibrary.wiley.com/doi/abs/10.14814/phy2.14327	2020	Praveen, Kumar, Jude S., Morton, Amin, Shah, Victor, Do, Consolato, Sergi, Jesus, Serrano-Lomelin, Sandra T., Davidge, Donna, Beker, Jody, Levasseur, Lisa K., Hornberger	No
A 6-month systems toxicology inhalation study in ApoE -/- mice demonstrates reduced cardiovascular effects of E-vapor aerosols compared with cigarette smoke	American Journal of Physiology-Heart and Circulatory Physiology	https://journals.physiology.org/doi/10.1152/ajpheart.00613.2019	2020	Justyna, Szostak, Ee Tsin, Wong, Bjoern, Titz, Tom, Lee, Sin Kei, Wong, Tiffany, Low, Kyeonghee Monica, Lee, Jingjie, Zhang, Ashutosh, Kumar, Walter K., Schlage, Emmanuel, Guedj, Blaine, Phillips, Patrice, Leroy, Ansgar, Buettner, Yang, Xiang, Florian, Martin, Alain, Sewer, Arkadiusz, Kuczaj, Nikolai V., Ivanov, Karsta, Luetlich, Patrick, Vanscheeuwijk, Manuel C., Peitsch, Julia, Hoeng	No
Hydrogen sulfide stimulates xanthine oxidoreductase conversion to nitrite reductase and formation of NO	Redox Biology	https://linkinghub.elsevier.com/retrieve/pii/S2213231719315885	2020	Sibile, Pardue, Gopi K., Kolluru, Xingguo, Shen, Sara E., Lewis, Courtney B., Saffie, Eric E., Kelley, Christopher G., Kevil	No
TRAIL-expressing cell membrane nanovesicles as an anti-inflammatory platform for rheumatoid arthritis therapy	Journal of Controlled Release	https://doi.org/10.1016/j.jconrel.2020.01.054	2020	Yesi, Shi, Fengfei, Xie, Peishi, Rao, Hongyan, Qian, Rongjuan, Chen, Hu, Chen, Dengfeng, Li, Dan, Mu, Lili, Zhang, Peng, Lv, Guixiu, Shi, Li, Zheng, Gang, Liu	No
Mild carotid stenosis creates gradual, progressive, lifelong brain, and eye damage: An experimental laboratory rat model	Journal of Comparative Neurology	https://onlinelibrary.wiley.com/doi/abs/10.1002/cne.24851	2020	Adi, Tzameret, Yael, Piontkewitz, Anat, Nitzan, Nir, Rudoler, Marina, Bruzel, Yael, Zilberstein, Hana, Ziv, Sarah, Pri-Chen, Arie S., Solomon	No
Ultrasound/Optical Dual-Modality Imaging for Evaluation of Vulnerable Atherosclerotic Plaques with Osteopontin Targeted Nanoparticles	Macromolecular Bioscience	https://onlinelibrary.wiley.com/doi/abs/10.1002/mabi.201900279	2020	Sulei, Li, Tiantian, Gou, Qi, Wang, Min, Chen, Ze, Chen, Mengqi, Xu, Yabin, Wang, Dong, Han, Ruihua, Cao, Junsong, Liu, Ping, Liang, Zhifei, Dai, Feng, Cao	No

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PM2.5-induced inflammation and lipidome alteration associated with the development of atherosclerosis based on a targeted lipidomic analysis	Environment International	https://doi.org/10.1016/j.envint.2019.105444	2020	Jingyi, Zhang, Shuang, Liang, Ruihong, Ning, Jinjin, Jiang, Jie, Zhang, Heqing, Shen, Rui, Chen, Junchao, Duan, Zhiwei, Sun	No
Neonatal hyperoxia exposure induces aortic biomechanical alterations and cardiac dysfunction in juvenile rats	Physiological Reports	https://onlinelibrary.wiley.com/doi/abs/10.14814/phy2.14334	2020	Merline, Benny, Diana R., Hernandez, Mayank, Sharma, Keyvan, Yousefi, Shathiyah, Kulandavelu, Sunil, Batlahally, Ronald, Zambrano, Pingping, Chen, Eliana C., Martinez, Augusto F., Schmidt, Lina A., Shehadeh, Roberto I., Vazquez-Padron, Shu, Wu, Omaidia C., Velazquez, Karen C., Young	No
Targeting endothelial thioredoxin-interacting protein (TXNIP) protects from metabolic disorder-related impairment of vascular function and post-ischemic revascularisation	Angiogenesis	https://doi.org/10.1007/s10456-019-09704-x	2020	Alison, Domingues, Catherine, Boisson-Vidal, Perrine, Marquet de Rouge, Blandine, Dizier, J��r��my, Sadoine, Virginie, Mignon, Emilie, Vessier��s, Daniel, Henrion, Virginie, Escriou, Pascal, Bigey, Catherine, Chaussain, David M., Smadja, Val��rie, Nivet-Antoine	No
Loss of PARP-1 attenuates diabetic arteriosclerotic calcification via Stat1/Runx2 axis	Cell Death & Disease	http://dx.doi.org/10.1038/s41419-019-2215-8	2020	Peng, Li, Ying, Wang, Xue, Liu, Bin, Liu, Zhao-yang, Wang, Fei, Xie, Wen, Qiao, Er-shun, Liang, Qing-hua, Lu, Ming-xiang, Zhang	No
Novel application and serial evaluation of tissue-engineered portal vein grafts in a murine model	Regenerative Medicine	https://www.futuremedicine.com/doi/10.2217/rme-2017-0021	2017	Mark W., Maxfield, Mitchel R., Stacy, Hirotsugu, Kurobe, Shuhei, Tara, Tai, Yi, Muriel A., Cleary, Zhen W., Zhuang, Manuel I., Rodr��guez-Davalos, Sukru H., Emre, Yasuko, Iwakiri, Toshiharu, Shinoka, Christopher K., Breuer	No
Mitochondrial transplantation ameliorates acute limb ischemia	Journal of Vascular Surgery	https://linkinghub.elsevier.com/retrieve/pii/S0741521419311887	2019	Arzoo, Orfany, Carlos Gal��n, Arriola, Ilias P., Doulamis, Alvise, Guariento, Giovanna, Ramirez-Barbieri, Kamila, Moskowitsova, Borami, Shin, David, Blitzer, Caitlyn, Rogers, Pedro J., del Nido, James D., McCully	No
Naringenin attenuates carotid stenosis in rats after balloon injury through its anti-inflammation and anti-oxidative effects via the RIP1-RIP3-MLKL signaling pathway	European Journal of Pharmacology	https://doi.org/10.1016/j.ejphar.2019.05.012	2019	Bo, Huang, Pei, Hu, Anling, Hu, Yingying, Li, Wanlan, Shi, Juan, Huang, Qingsong, Jiang, Shangfu, Xu, Lisheng, Li, Qin, Wu	No
A preclinical ultrasound method for the assessment of vascular disease progression in murine models	Ultrasound	http://journals.sagepub.com/doi/10.1177/1742271X18793919	2019	Justyna, Janus, Baris, Kanber, Wadhah, Mahbuba, Charlotte, Beynon, Kumar V., Ramnarine, David G., Lambert, Nilesh J., Samani, Emma J., Stringer, Michael E., Kelly	No
Early pathological characterization of murine dissecting abdominal aortic aneurysms	APL Bioengineering	http://aip.scitation.org/doi/10.1063/1.5053708	2018	Evan H., Phillips, Adam H., Lorch, Abigail C., Durkes, Craig J., Goergen	No
Melatonin Stabilizes Rupture-Prone Vulnerable Plaques via Regulating Macrophage Polarization in a Nuclear Circadian Receptor <sc>ROR</sc>-Dependent Manner	Journal of Pineal Research	https://onlinelibrary.wiley.com/doi/abs/10.1111/jpi.12581	2019	Song, Ding, Nan, Lin, Xincheng, Sheng, Yichao, Zhao, Yuan, Yuan, Su, Longwei, Xu, Renyang, Tong, Yang, Yan, Yanan, Fu, Jie, He, Yu, Gao, Anciai, Yuan, Lei, Ye, Russel J., Reiter, Jun, Pu	No
Silica nanoparticles trigger the vascular endothelial dysfunction and prethrombotic state via miR-451 directly regulating the IL6R signaling pathway	Particle and Fibre Toxicology	https://particleandfibretoxicology.biomedcentral.com/articles/10.1186/s12989-01...	2019	Lin, Feng, Xiaozhe, Yang, Shuang, Liang, Qing, Xu, Mark R., Miller, Junchao, Duan, Zhiwei, Sun	No

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Short-Term Preoperative Protein Restriction Attenuates Vein Graft Disease via Induction of Cystathionine γ-Lyase	Cardiovascular Research	https://academic.oup.com/cardiovascres/advance-article/doi/10.1093/cvr/cvz086/5...	2019	Kaspar M, Trocha, Peter, Kip, Ming, Tao, Michael R, MacArthur, Humberto, Treviño-Villalreal, Alban, Longchamp, Wendy, Toussaint, Bart N, Lambrecht, Margreet R, de Vries, Paul H A, Quax, James R, Mitchell, C Keith, Ozaki	No
Rapamycin attenuates a murine model of thoracic aortic aneurysm by downregulating the miR-126-3p mediated activation of MAPK/ERK signalling pathway	Biochemical and Biophysical Research Communications	https://linkinghub.elsevier.com/retrieve/pii/S0006291X19304723	2019	Mingyuan, Liu, Lubin, Li, Juanjuan, Zhu, Changshun, He, Qing, Xu, Anqiang, Sun, Wei, Kong, Wei, Li, Xiaoming, Zhang	No
Knockout of dihydrofolate reductase in mice induces hypertension and abdominal aortic aneurysm via mitochondrial dysfunction	Redox Biology	https://linkinghub.elsevier.com/retrieve/pii/S221323171930182X	2019	Qiang, Li, Ji Youn, Youn, Kin Lung, Siu, Priya, Murugesan, Yixuan, Zhang, Hua, Cai	No
Portal milieu and the interplay of multiple anti-diabetic effects after gastric bypass surgery	American Journal of Physiology-Gastrointestinal and Liver Physiology	https://www.physiology.org/doi/10.1152/ajpgi.00389.2018	2019	Atanu, Pal, David B, Rhoads, Ali, Tavakkoli	No
CD146 deficiency promotes plaque formation in a mouse model of atherosclerosis by enhancing RANTES secretion and leukocyte recruitment	Journal of Molecular and Cellular Cardiology	https://doi.org/10.1016/j.yjmcc.2019.03.017	2019	Muriel G., Blin, Richard, Bachelier, Karim, Fallague, Karima, Mousouni, Michel, Aurrand-Lions, Samantha, Fernandez, Benjamin, Guillet, Stéphane, Robert, Alexandre, Foucault-Bertaud, Nathalie, Bardin, Marcel, Blot-Chabaud, Françoise, Dignat-George, Aurélie S., Leroyer	No
Noninvasive Contrast-Free 3D Evaluation of Tumor Angiogenesis with Ultrasensitive Ultrasound Microvessel Imaging	Scientific Reports	http://www.nature.com/articles/s41598-019-41373-0	2019	Chengwu, Huang, Matthew R., Lowerison, Fabrice, Lucien, Ping, Gong, Diping, Wang, Pengfei, Song, Shigao, Chen	No
Endothelial Nox4-based NADPH oxidase regulates atherosclerosis via soluble epoxide hydrolase	Biochimica et Biophysica Acta (BBA) - Molecular Basis of Disease	http://dx.doi.org/10.1016/j.bbadis.2017.02.004	2017	Pingping, Hu, Xiaojuan, Wu, Alok R., Khandelwal, Weimin, Yu, Zaicheng, Xu, Lili, Chen, Jian, Yang, Robert M., Weisbrod, Kin Sing Stephen, Lee, Francesca, Seta, Bruce D., Hammock, Richard A., Cohen, Chunyu, Zeng, Xiaoyong, Tong	No
Recent strategies on targeted delivery of thrombolytics	Asian Journal of Pharmaceutical Sciences	https://linkinghub.elsevier.com/retrieve/pii/S181808761831208X	2019	Ting, Huang, Ni, Li, Jianqing, Gao	No
Micro-ultrasound for preclinical imaging	Interface Focus		2011	F., Stuart Foster, John, Hossack, S., Lee Adamson	No
Magnesium but not nicotinamide prevents vascular calcification in experimental uraemia	Nephrology Dialysis Transplantation	https://academic.oup.com/ndt/advance-article/doi/10.1093/ndt/gfy410/5305640	2019	Nadine, Kaesler, Claudia, Goettsch, Daniel, Weis, Leon, Schurgers, Burkhard, Hellmann, Jürgen, Floege, Rafael, Kramann	No
Z-Ligustilide protects vascular endothelial cells from oxidative stress and rescues high fat diet-induced atherosclerosis by activating multiple NRF2 downstream genes	Atherosclerosis	https://linkinghub.elsevier.com/retrieve/pii/S0021915019300887	2019	Yao, Zhu, Yajie, Zhang, Xia, Huang, Yong, Xie, Yuan, Qu, Hongyan, Long, Ning, Gu, Weimin, Jiang	No
Fluid dynamics and forces in the HH25 avian embryonic outflow tract	Biomechanics and Modeling in Mechanobiology	http://link.springer.com/10.1007/s10237-019-01132-6	2019	Sheldon, Ho, Wei Xuan, Chan, Shreyas, Rajesh, Nhan, Phan-Thien, Choon Hwai, Yap	No
The pro-atherogenic response to disturbed blood flow is increased by a western diet, but not by old age	Scientific Reports	http://www.nature.com/articles/s41598-019-39466-x	2019	Ashley E., Walker, Sarah R., Breevoort, Jessica R., Durrant, Yu, Liu, Daniel R., Machin, Parker S., Dobson, Elizabeth I., Nielson, Antonio J., Meza, Md. Torikul, Islam, Anthony J., Donato, Lisa A., Lesniewski	No
Site-specific chelation therapy with EDTA-loaded albumin nanoparticles reverses arterial calcification in a rat model of chronic kidney disease	Scientific Reports	http://www.nature.com/articles/s41598-019-39639-8	2019	Saketh R., Karamched, Nasim, Nosoudi, Hannah E., Moreland, Anika, Chowdhury, Naren R., Vyavahare	No

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Mas receptor deficiency augments angiotensin II-induced atherosclerosis and aortic aneurysm ruptures in hypercholesterolemic male mice	Journal of Vascular Surgery	https://doi.org/10.1016/j.jvs.2018.11.045	2019	Johannes, Stegbauer, Sean E., Thatcher, Guang, Yang, Katharina, Bottermann, Lars Christian, Rump, Alan, Daugherty, Lisa A., Cassis	No
In vivo characterization of doxycycline-mediated protection of aortic function and structure in a mouse model of Marfan syndrome-associated aortic aneurysm	Scientific Reports	http://www.nature.com/articles/s41598-018-38235-6	2019	Jason Z., Cui, Ling, Lee, Xiaoye, Sheng, Fanny, Chu, Christine P., Gibson, Taline, Aydinian, David C., Walker, George G. S., Sandor, Pascal, Bernatchez, Glen F., Tibbits, Cornelis, van Breemen, Mitra, Esfandiari	No
Stimulation of Caveolin-1 Signaling Improves Arteriovenous Fistula Patency	Arteriosclerosis, Thrombosis, and Vascular Biology	https://www.ahajournals.org/doi/10.1161/ATVBAHA.119.312417	2019	Takuya, Hashimoto, Toshihiko, Isaji, Haidi, Hu, Kota, Yamamoto, Hualong, Bai, Jeans M., Santana, Andrew, Kuo, Go, Kuwahara, Trenton R., Foster, Jesse J., Hanisch, Bogdan A., Yatsula, William C., Sessa, Katsuyuki, Hoshina, Alan, Dardik	No
Age-dependent characterization of the carotid and cerebral artery morphologies in a transgenic mouse model of sickle cell anemia using ultrasound and microcomputed tomography	BioRxiv		2019	Christian, Rivera, Li, Li, Shuangyi, Cai, Nui, Pei, George, McAlear, Keval, Bollavaram, Oluwasanmi, Aryio, Victor, Omojola, Hannah, SOng, Wenchang, Tan, Yunlong, Huo, Manu, Platt	No
Endothelial signaling by neutrophil-released oncostatin M enhances P-selectin-dependent inflammation and thrombosis	Blood Advances	http://www.bloodadvances.org/lookup/doi/10.1182/bloodadvances.2018026294	2019	Hendra, Setiadi, Tadayuki, Yago, Zhenghui, Liu, Rodger P., McEver	No
Implantation of VEGF-functionalized cell-free vascular grafts: regenerative and immunological response	The FASEB Journal	https://www.fasebj.org/doi/10.1096/fj.201801856R	2019	Randall J., Smith, Tai, Yi, Bita, Nasiri, Christopher K., Breuer, Stelios T., Andreadis	No
Effects of low-dose oxygen ions and protons on cardiac function and structure in male C57BL/6j mice	Life Sciences in Space Research	https://doi.org/10.1016/j.lssr.2019.01.003	2019	John W., Seawright, Vijayalakshmi, Sridharan, Reid D., Landes, Maohua, Cao, Preeti, Singh, Igor, Koturbash, Xiao-Wen, Mao, Isabelle R., Miousse, Sharda P., Singh, Gregory A., Nelson, Martin, Hauer-Jensen, Marjan, Boerma	No
Fibroblast Growth Factor 21 Attenuates Vascular Calcification by Alleviating Endoplasmic Reticulum Stress Mediated Apoptosis in Rats	International Journal of Biological Sciences	http://www.ijbs.com/v15p0138.htm	2019	Yuchen, Shi, Shaoping, Wang, Hongyu, Peng, Yuan, Lv, Wenzheng, Li, Shujuan, Cheng, Jinghua, Liu	No
Functionalized polymer microbubbles as new molecular ultrasound contrast agent to target P-selectin in thrombus	Biomaterials	https://linkinghub.elsevier.com/retrieve/pii/S0142961218308585	2019	Bo, Li, Rachida, Aid-Launais, Marie-Noëlle, Labour, Alina, Zenych, Maya, Juenet, Christine, Choqueux, Véronique, Ollivier, Olivier, Couture, Didier, Letourneur, Cédric, Chauvierre	No
Cohort-based multiscale analysis of hemodynamic-driven growth and remodeling of the embryonic pharyngeal arch arteries	Development	http://dev.biologists.org/lookup/doi/10.1242/dev.162578	2018	Stephanie E., Lindsey, Jonathan T., Butcher, Irene E., Vignon-Clementel	No
The chronic complex stress combined atherogenic diet accelerates the process of atherosclerosis in mice	Integrative Molecular Medicine	https://www.oatext.com/the-chronic-complex-stress-combined-atherogenic-diet-acc...	2018	Jinyao, Liu, Ayako, Himemiya-Hakucho, Xu, Liu, Koichi, Yoshimura, Tatsuya, Fujimiya	No

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Statins Reduce Thoracic Aortic Aneurysm Growth in Marfan Syndrome Mice via Inhibition of the Ras-Induced ERK (Extracellular Signal-Regulated Kinase) Signaling Pathway	Journal of the American Heart Association	https://www.ahajournals.org/doi/10.1161/JAHA.118.008543	2018	Tetsuya, Sato, Mamoru, Arakawa, Yasushi, Tashima, Eitoshi, Tsuboi, Grayson, Burdon, Jeffrey, Trojan, Tiffany, Koyano, Young-Nam, Youn, Kiril, Penov, Albert J, Pedroza, Mohammad, Shabazzi, Itai, Palmon, Marie Noel, Nguyen, Andrew J, Connolly, Atsushi, Yamaguchi, Michael P, Fischbein	No
Natural killer cells induce neutrophil extracellular trap formation in venous thrombosis	Journal of Thrombosis and Haemostasis	http://doi.wiley.com/10.1111/jth.14339	2018	François-René, Bertin, Ryan N., Rys, Cedric, Mathieu, Sandrine, Laurance, Catherine A., Lemarié, Mark D., Blostein	No
Noninvasive in vivo Assessment of the Re-endothelialization Process Using Ultrasound Biomicroscopy in the Rat Carotid Artery Balloon Injury Model	Journal of Ultrasound in Medicine	http://doi.wiley.com/10.1002/jum.14858	2018	Samuel, Röhl, Linnea, Eriksson, Robert, Saxelin, Mariette, Lengquist, Claes-Göran, Östenson, Ulf, Hedin, Kenneth, Caidahl, Anton, Razuvaev	No
Alcohol Consumption in Combination with an Atherogenic Diet Increased Indices of Atherosclerosis in Apolipoprotein E/Low-Density Lipoprotein Receptor Double-Knockout Mice	Alcoholism: Clinical and Experimental Research	http://www.ncbi.nlm.nih.gov/pubmed/30428137 http://doi.wiley.com/10.1111/acer...	2018	Yuzo, Furuta, Jinyao, Liu, Ayako, Himemiya-Hakucho, Koichi, Yoshimura, Tatsuya, Fujimiya	No
ROBO4 variants predispose individuals to bicuspid aortic valve and thoracic aortic aneurysm	Nature Genetics	http://www.nature.com/articles/s41588-018-0265-y	2019	Russell A., Gould, Hamza, Aziz, Courtney E., Woods, Manuel Alejandro, Seman-Senderos, Elizabeth, Sparks, Christoph, Preuss, Florian, Wünnemann, Djahida, Bedja, Cassandra R., Moats, Sarah A., McClymont, Rebecca, Rose, Nara, Sobreira, Hua, Ling, Gretchen, MacCarrick, Ajay Anand, Kumar, Ilse, Luyckx, Elyssa, Cannaerts, Aline, Verstraeten, Hanna M., Björk, Ann-Cathrin, Lehsau, Vinod, Jaskula-Ranga, Henrik, Lauridsen, Asad A., Shah, Christopher L., Bennett, Patrick T., Ellinor, Honghuang, Lin, Eric M., Isselbacher, Christian Lacks, Lino Cardenas, Jonathan T., Butcher, G. Chad, Hughes, Mark E., Lindsay, Luc, Mertens, Anders, Franco-Cereceda, Judith M. A., Verhagen, Marja, Wessels, Salah A., Mohamed, Per, Eriksson, Seema, Mital, Lut, Van Laer, Bart L., Loey, Gregor, Andelfinger, Andrew S., McCallion, Harry C., Dietz	No
The GLP-1 Analogs Liraglutide and Semaglutide Reduce Atherosclerosis in ApoE^{-/-} and LDLr^{-/-} Mice by a Mechanism That Includes Inflammatory Pathways	JACC: Basic to Translational Science	https://linkinghub.elsevier.com/retrieve/pii/S2452302X18302389	2018	Günaj, Rakipovski, Bidda, Rolin, Jane, Nøhr, Ib, Klewe, Klaus S., Frederiksen, Robert, Augustin, Jacob, Hecksher-Sørensen, Camilla, Ingvorsen, Joseph, Pollex-Wolf, Lotte Bjerre, Knudsen	No
Vascular Remodeling Process of Heparin-Conjugated Poly(L-Caprolactone) Scaffold in a Rat Abdominal Aorta Replacement Model	Journal of Vascular Research	https://www.karger.com/Article/FullText/494509 http://www.ncbi.nlm.nih.gov/pu...	2018	Zeqin, Xu, Yongquan, Gu, Jianxin, Li, Zengguo, Feng, Lianrui, Guo, Zhu, Tong, Lin, Ye, Chunmei, Wang, Rong, Wang, Xue, Geng, Cong, Wang, Jian, Zhang	No

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Clarifying the relative impacts of vascular and nerve injury that culminate in erectile dysfunction in a pilot study using a rat model of prostate irradiation and a thrombopoietin mimetic	International Journal of Radiation Oncology*Biophysics	https://linkinghub.elsevier.com/retrieve/pii/S0360301618340665	2018	Kathleen A., Ashcraft, Johanna L., Hannan, Gary, Eichenbaum, Xiaojie, Zhang, Elena S., Pak, Austin M., Faught, Pranalee, Patel, Mark W., Dewhirst, Bridget F., Koontz	No
Deficiency of IL12p40 (Interleukin 12 p40) Promotes Ang II (Angiotensin II)-Induced Abdominal Aortic Aneurysm	Arteriosclerosis, Thrombosis, and Vascular Biology	https://www.ahajournals.org/doi/10.1161/ATVBAHA.118.311969	2019	Neekun, Sharma, Rishabh, Dev, Anthony M, Belenchia, Annayya R, Aroor, Adam, Whaley-Connell, Lakshmi, Pulakat, Chetan P, Hans	No
Aspirin pre-treatment modulates ozone-induced fetal growth restriction and alterations in uterine blood flow in rats	Reproductive Toxicology	https://linkinghub.elsevier.com/retrieve/pii/S0890623818304830	2019	Colette N., Miller, Urmila P., Kodavanti, Erica J., Stewart, Mette, Schaldweiller, Judy H., Richards, Allen D., Ledbetter, Leslie T., Jarrell, Samantha J., Snow, Andres R., Henriquez, Aimen K., Farraj, Janice A., Dye	No
Rosuvastatin stabilizes atherosclerotic plaques by reducing CD40L overexpression-induced downregulation of P4Hα1 in ApoE-/- mice	The International Journal of Biochemistry & Cell Biology	https://linkinghub.elsevier.com/retrieve/pii/S1357272518302176	2018	Xiao-Lin, Wang, Wei, Sun, Yuan-Li, Zhou, Li, Li	No
Brg1 trans-activates endothelium-derived colony stimulating factor to promote calcium chloride induced abdominal aortic aneurysm in mice	Journal of Molecular and Cellular Cardiology	https://doi.org/10.1016/j.yjmcc.2018.10.012	2018	Xinjian, Zhang, Shuai, Liu, Xinyu, Weng, Teng, Wu, Liming, Yu, Yong, Xu, Junli, Guo	No
Renal cystic disease in the Fbn1C1039G/+ Marfan mouse is associated with enhanced aortic aneurysm formation	Cardiovascular Pathology	https://doi.org/10.1016/j.carpath.2018.10.002	2019	Stijntje, Hibender, Shaynah, Wanga, Ingeborg, van der Made, Mariska, Vos, Barbara JM, Mulder, Ron, Balm, Carlie JM, de Vries, Vivian, de Waard	No
Increased placental T cell trafficking results in adverse neurobehavioral outcomes in offspring exposed to sub-chronic maternal inflammation	Brain, Behavior, and Immunity		2018	Christopher M., Novak, Ji Yeon, Lee, Maide, Ozen, Michael E., Tsimis, Lauren M., Kucirka, Michael W., McLane, Li, Xie, Meredith, Kelleher, Han, Xie, Bei, Jia, Jun, Lei, Irina, Burd	No
Rapamycin prevents thoracic aortic aneurysm and dissection in mice	Journal of Vascular Surgery	https://doi.org/10.1016/j.jvs.2018.05.246	2018	Biao, Zhou, Wei, Li, Guizhen, Zhao, Bing, Yu, Baihui, Ma, Zhujiang, Liu, Nan, Xie, Yi, Fu, Ze, Gong, Rongbo, Dai, Xiaoming, Zhang, Wei, Kong	No
The effect of the heart rate lowering drug ivabradine on hemodynamics in atherosclerotic mice	Scientific Reports	http://www.nature.com/articles/s41598-018-32458-3	2018	R., Xing, A. M., Moerman, R. Y., Ridwan, K. van, Gaalen, E. J., Meester, A. F. W., van der Steen, P. C., Evans, F. J. H., Gijsen, K., Van der Heiden	No
Vascular endothelial function is impaired by aerosol from a single IQOS HeatStick to the same extent as by cigarette smoke	Tobacco Control	https://tobaccocontrol.bmj.com/content/early/2018/09/11/tobaccocontrol-2018-054...	2018	Pooneh, Nabavizadeh, Jiangtao, Liu, Christopher M, Havel, Sharina, Ibrahim, Ronak, Derakhshandeh, Peyton Jacob, III, Matthew L, Springer	No
Improved photoacoustic-based oxygen saturation estimation with SNR-regularized local fluence correction	IEEE Transactions on Medical Imaging	https://ieeexplore.ieee.org/document/8458163/	2018	Mohamed A., Naser, Diego R. T., Sampaio, Nina M., Munoz, Cayla A., Wood, Trevor M., Mitcham, Wolfgang, Stefan, Konstantin V., Sokolov, Theo Z., Pavan, Rony, Avritscher, Richard R., Bouchard	No
Photoacoustic Oxygenation Quantification in Patients with Raynaud's: First-in-Human Results	Ultrasound in Medicine and Biology		2018	John R., Eisenbrey, Maria, Stanczak, Flemming, Forsberg, Fabian A., Mendoza-Ballesteros, Andrej, Lyshchik	No

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Combining in vivo and in vitro biomechanical data reveals key roles of perivascular tethering in central artery function	PLOS ONE	http://dx.plos.org/10.1371/journal.pone.0201379	2018	Jacopo, Ferruzzi, Paolo, Di Achille, George, Tellides, Jay D, Humphrey	No
Biodegradable and elastomeric vascular grafts enable vascular remodeling	Biomaterials	https://linkinghub.elsevier.com/retrieve/pii/S014296121830629X	2018	Meifeng, Zhu, Yifan, Wu, Wen, Li, Xianhao, Dong, Hong, Chang, Kai, Wang, Pingli, Wu, Jun, Zhang, Guanwei, Fan, Lianyong, Wang, Jianfeng, Liu, Hongjun, Wang, Deling, Kong	No
A preclinical ultrasound method for the assessment of vascular disease progression in murine models	Ultrasound	http://journals.sagepub.com/doi/10.1177/1742271X18793919	2018	Justyna, Janus, Baris, Kanber, Wadhah, Mahbuba, Charlotte, Beynon, Kumar V, Ramnarine, David G, Lambert, Nilesh J, Samani, Emma J, Stringer, Michael E, Kelly	No
A preclinical ultrasound method for the assessment of vascular disease progression in murine models	Ultrasound	http://journals.sagepub.com/doi/10.1177/1742271X18793919	2018	Justyna, Janus, Baris, Kanber, Wadhah, Mahbuba, Charlotte, Beynon, Kumar V, Ramnarine, David G, Lambert, Nilesh J, Samani, Emma J, Stringer, Michael E, Kelly	No
Fast Vessel Segmentation and Tracking in Ultra High-Frequency Ultrasound Images.	arXiv Computer Vision and Pattern Recognition	http://arxiv.org/abs/1807.08784	2018	Tejas Sudharshan, Mathai, Lingbo, Jin, Vijay, Gorantla, John, Galeotti	No
MicroRNA-217 attenuates intima-media complex thickness of ascending aorta measured by ultrasound bi-microscopy and inhibits inflammation and lipid metabolism in atherosclerotic models of ApoE-/- mice	Lipids in Health and Disease	https://lipidworld.biomedcentral.com/articles/10.1186/s12944-018-0825-2	2018	Haina, Liu, Xia, Li, Yanyang, Song, Zhibin, Wang	No
The Murine Dialysis Fistula Model Exhibits a Senescence Phenotype: Pathobiologic Mechanisms and Therapeutic Potential	American Journal of Physiology-Renal Physiology	https://www.physiology.org/doi/10.1152/ajprenal.00308.2018	2018	Karl A., Nath, Daniel R, O'Brien, Anthony J., Croatt, Joseph P, Grande, Allan W., Ackerman, Meryl C., Nath, Satsuki, Yamada, Andre, Terzic, Tamara, Tchkonja, James L., Kirkland, Zvonimir S., Katusic	No
A biodegradable synthetic graft for small arteries matches the performance of autologous vein in rat carotid arteries	Biomaterials	https://linkinghub.elsevier.com/retrieve/pii/S0142961218305222	2018	Kee-Won, Lee, Piyusha S., Gade, Liwei, Dong, Zhaoxiang, Zhang, Ali Mubin, Aral, Jin, Gao, Xiaochu, Ding, Chelsea E.T., Stowell, Muhammad Umer, Nisar, Kang, Kim, Dieter P., Reinhardt, Mario G., Solari, Vijay S., Gorantla, Anne M., Robertson, Yadong, Wang	No
Glucagon-like peptide-1 receptor antagonism impairs basal exercise capacity and vascular adaptation to aerobic exercise training in rats	Physiological Reports	http://doi.wiley.com/10.14814/phy2.13754	2018	Rebecca L., Scalzo, Leslie A., Knaub, Sara E., Hull, Amy C., Keller, Kendall, Hunter, Lori A., Walker, Jane E. B., Reusch	No
Inhibition of prolyl hydroxylase domain proteins selectively enhances venous thrombus neovascularisation	Thrombosis Research	https://linkinghub.elsevier.com/retrieve/pii/S0049384818304237	2018	S.P., Grover, P., Saha, J., Humphries, O.T., Lyons, A.S., Patel, J., Serneels, B., Modarai, M., Mazzone, A., Smith	No
Notoginsenoside R1, a unique constituent of Panax notoginseng, blinds proinflammatory monocytes to protect against cardiac hypertrophy in ApoE-/- mice	European Journal of Pharmacology	https://www.sciencedirect.com/science/article/pii/S0014299918303704?via%3Dihub#!	2018	Jing, Xiao, Ting, Zhu, Yue-zhang, Yin, Bing, Sun	No

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Systemic Upregulation of IL-10 (Interleukin-10) Using a Nonimmunogenic Vector Reduces Growth and Rate of Dissecting Abdominal Aortic Aneurysm	Arteriosclerosis, Thrombosis, and Vascular Biology	http://atvb.ahajournals.org/lookup/doi/10.1161/ATVBAHA.117.310672	2018	Matti, Adam, Nigel, Kooreman, Ann, Jagger, Markus U, Wagenhaeuser, Dennis, Mehrkens, Yongming, Wang, Yosuke, Kayama, Kensuke, Toyama, Uwe, Raaz, Isabel N., Schellinger, Lars, Maegdefessel, Joshua M., Spin, Jaap F., Hamming, Paul H.A., Quax, Stephan, Baldus, Joseph C., Wu, Philip S., Tsao	No
Inhibition of endoplasmic reticulum stress by intermedin-1-53 attenuates angiotensin II-induced abdominal aortic aneurysm in ApoE KO Mice	Endocrine	http://link.springer.com/10.1007/s12020-018-1657-6	2018	Xian-Qiang, Ni, Wei-Wei, Lu, Jin-Sheng, Zhang, Qing, Zhu, Jin-Ling, Ren, Yan-Rong, Yu, Xiu-Ying, Liu, Xiu-Jie, Wang, Mei, Han, Qing, Jing, Jie, Du, Chao-Shu, Tang, Yong-Fen, Qi	No
Sympathetic Neuronal Activation Triggers Myeloid Progenitor Proliferation and Differentiation	Immunity	https://doi.org/10.1016/j.immuni.2018.05.004	2018	Sathish Babu, Vasamsetti, Jonathan, Florentin, Emilie, Coppin, Lotte C.A., Stiekema, Kang H., Zheng, Muhammad Umer, Nisar, John, Sembrat, David J., Levinthal, Mauricio, Rojas, Erik S.G., Stroes, Kang, Kim, Partha, Dutta	No
The endothelial tumor suppressor p53 is essential for venous thrombus formation in aged mice	Blood Advances	http://www.bloodadvances.org/lookup/doi/10.1182/bloodadvances.2017014050	2018	Magdalena L, Bochenek, Tobias, Bauer, Rajinikanth, Gogiraju, Yona, Nadir, Amrit, Mann, Tanja, Schönfelder, Leonie, Hünig, Benjamin, Brenner, Thomas, Münzel, Philip, Wenzel, Stavros, Konstantinides, Katrin, Schäfer	No
Angiotensin II receptor I blockade prevents stenosis of tissue engineered vascular grafts	The FASEB Journal	http://www.fasebj.org/doi/10.1096/fj.201800458	2018	Juan de Dios, Ruiz-Rosado, Yong-Ung, Lee, Nathan, Mahler, Tai, Yi, Frank, Robledo-Avila, Diana, Martinez-Saucedo, Avione Y, Lee, Toshihiro, Shoji, Eric, Heuer, Andrew R, Yates, Jordan S, Pober, Toshiharu, Shinoka, Santiago, Partida-Sanchez, Christopher K, Breuer	No
Bone marrow-derived mononuclear cell seeded bioresorbable vascular graft improves acute graft patency by inhibiting thrombus formation via platelet adhesion	International Journal of Cardiology	https://doi.org/10.1016/j.ijcard.2018.01.059	2018	Hideki, Miyachi, James W, Reinhardt, Satoru, Otsuru, Shuhei, Tara, Hidetaka, Nakayama, Tai, Yi, Yong-ung, Lee, Shinka, Miyamoto, Toshihiro, Shoji, Tadahisa, Suglura, Christopher K, Breuer, Toshiharu, Shinoka	No
Chemokine CC-motif ligand 2 participates in platelet function and arterial thrombosis by regulating PKCα-P38MAPK-HSP27 pathway	Biochimica et Biophysica Acta - Molecular Basis of Disease	https://doi.org/10.1016/j.bbadis.2018.05.025	2018	Dan, Liu, Yu, Cao, Xiaolin, Zhang, Chengfei, Peng, Xiaoxiang, Tian, Chenghui, Yan, Yanxia, Liu, Meili, Liu, Yaling, Han	No
Perivascular Adipose Tissue-Derived PDGF-D Contributes to Aortic Aneurysm Formation during Obesity	Diabetes	http://diabetes.diabetesjournals.org/lookup/doi/10.2337/db18-0098	2018	Ze-Bei, Zhang, Cheng-Chao, Ruan, Jing-Rong, Lin, Lian, Xu, Xiao-Hui, Chen, Ya-Nan, Du, Meng-Xia, Fu, Ling-Ran, Kong, Ding-Liang, Zhu, Ping-Jin, Gao	No
Ginkgo biloba extracts prevent aortic rupture in angiotensin II-infused hypercholesterolemic mice	Acta Pharmacologica Sinica	http://dx.doi.org/10.1038/s41401-018-0017-7	2018	Xiao-fang, Huang, Song-zhao, Zhang, Ya-yu, You, Na, Zhang, Hong, Lu, Alan, Daugherty, Xiao-jie, Xie	No
Four Surgical Modifications to the Classic Elastase Perfusion Aneurysm Model Enable Haemodynamic Alterations and Extended Elastase Perfusion	Eur J Vasc Endovasc Surg	https://www.ejves.com/article/S1078-5884(18)30159-X/fulltext	2018	A, Busch, E, Chernogubova, H, Jin, F, Meurer, H H, Eckstein, M, Kim, L, Maegdefessel	No

Title	Journal	Link	Publication date	References	Top Paper
Deep Vein Thrombosis Induced by Stasis in Mice Monitored by High Frequency Ultrasonography.	Journal of Visualized Experiments		2018	Ryan N. Rys, Mark D, Blostein, Catherine A, Lemarié	No
Restoring mitochondrial DNA copy number preserves mitochondrial function and delays vascular aging in mice	Aging Cell	http://www.ncbi.nlm.nih.gov/pubmed/29745022%0Ahttp://doi.wiley.com/10.1111/ace...	2018	Kirsty, Foote, Johannes, Reinhold, Emma P. K., Yu, Nichola L., Figg, Alison, Finigan, Michael P., Murphy, Martin R., Bennett	No
Motion model ultrasound localization microscopy for preclinical and clinical multiparametric tumor characterization	Nature Communications	http://www.nature.com/articles/s41467-018-03973-8	2018	Tatjana, Opacic, Stefanie, Dencks, Benjamin, Theek, Marion, Piepenbrock, Dimitri, Ackermann, Anne, Rix, Twan, Lammers, Elmar, Stickeler, Stefan, Delorme, Georg, Schmitz, Fabian, Kiessling	No
Ganoderma Triterpenoids Exert Antiatherogenic Effects in Mice by Alleviating Disturbed Flow-Induced Oxidative Stress and Inflammation	Oxidative Medicine and Cellular Longevity	https://www.hindawi.com/journals/omcl/2018/3491703/	2018	Pei-ling, Hsu, Yung-ching, Lin, Hao, Ni, Fan-e, Mo	No
Gut-dependent microbial translocation induces inflammation and cardiovascular events after ST-elevation myocardial infarction			2018	Xin, Zhou, Jing, Li, Junli, Guo, Bin, Geng, Wenjie, Ji, Qian, Zhao, Jinlong, Li, Xinlin, Liu, Junxiang, Liu, Zhaozeng, Guo, Wei, Cai, Yongqiang, Ma, Dong, Ren, Jun, Miao, Shaobo, Chen, Zhuoli, Zhang, Junru, Chen, Jiuchang, Zhong, Wenbin, Liu, Minghui, Zou, Yuming, Li, Jun, Cai	No
CXCL8 hyper-signaling in the aortic abdominal aneurysm	Cytokine		2018	Vivianne B.C., Kokje, Gabor, Gabel, Ron L., Dalman, Dave, Koole, Bernd H., Northoff, Lesca M., Holdt, Jaap F., Hamming, Jan H.N., Lindeman	No
Acute reductions in mechanical wall strain precede the formation of intimal hyperplasia in a murine model of arterial occlusive disease	Journal of Vascular Surgery	http://linkinghub.elsevier.com/retrieve/pii/S0741521413014651	2014	John T., Favreau, Chengwei, Liu, Peng, Yu, Ming, Tao, Christine, Mauro, Glenn R., Gaudette, C. Keith, Ozaki	No
Role of Acid Sphingomyelinase and Ceramide in Mechano-Acoustic Enhancement of Tumor Radiation Responses	Journal of the National Cancer Institute		2018	A El, Kaffas, A, Al-Mahrrouki, A, Hashim, N, Law, A, Giles, G J, Czarnota	No
Pulmonary Arterial Hypertension and Endothelial Dysfunction Is Linked to NADPH Oxidase-Derived Superoxide Formation in Venous Thrombosis and Pulmonary Embolism in Mice	Oxidative Medicine and Cellular Longevity	https://www.hindawi.com/journals/omcl/2018/1860513/	2018	Moritz, Brandt, Eleni, Giokoglu, Venkata, Garlapati, Madgalena L., Bochenek, Michael, Molitor, Lukas, Hobohm, Tanja, Schönfelder, Thomas, Münzel, Sabine, Kossmann, Susanne H, Karbach, Katrin, Schäfer, Philip, Wenzel	No
Minoxidil improves vascular compliance, restores cerebral blood flow and alters extracellular matrix gene expression in a model of chronic vascular stiffness	American Journal of Physiology-Heart and Circulatory Physiology	http://www.physiology.org/doi/10.1152/ajpheart.00683.2017	2018	Russell, Knutsen, Scott C, Beeman, Thomas J, Broekelmann, Delong, Liu, Kit Man, Tsang, Attila, Kovacs, Li, Ye, Joshua, Danback, Anderson, Watson, Amanda, Wardlaw, Jessica, Wagenseil, Joel R, Garbow, Michael, Shoykhet, Beth A, Koziel	No
In vivo inhibition of nuclear factor of activated T-cells leads to atherosclerotic plaque regression in IGF-II/LDLR -/- ApoB 100/100 mice	Diabetes and Vascular Disease Research	http://journals.sagepub.com/doi/10.1177/1479164118759220	2018	Fabiana, Blanco, Suvi E, Heinonen, Erika, Gurzeler, Lisa M, Berglund, Anna-Maria, Duttius Andersson, Olga, Kotova, Ann-Cathrine, Jönsson-Rylander, Seppo, Ylä-Herttuala, Maria F, Gomez	No
Transcriptional regulation mediated by H2A.Z via ANP32e-dependent inhibition of protein phosphatase 2A	Biochimica et Biophysica Acta (BBA) - Gene Regulatory Mechanisms	http://linkinghub.elsevier.com/retrieve/pii/S1874939917303930	2018	Hyewon, Shin, Minzhen, He, Zhi, Yang, Yong Heui, Jeon, Jessica, Pfleger, Danish, Sayed, Maha, Abdellatif	No

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Temporal and spatial changes in wall shear stress during atherosclerotic plaque progression in mice	Royal Society Open Science	http://rsos.royalsocietypublishing.org/content/5/3/171447.abstract	2018	R, Xing, A M, Moerman, Y, Ridwan, M J, Daemen, A F W, van der Steen, F J H, Gijzen, K, van der Heiden	No
MicroRNA-21 Knockout Exacerbates Angiotensin II-Induced Thoracic Aortic Aneurysm and Dissection in Mice With Abnormal Transforming Growth Factor-β-SMAD3 Signaling	Arteriosclerosis, Thrombosis, and Vascular Biology	http://atvb.ahajournals.org/lookup/doi/10.1161/ATVBAHA.117.310694	2018	Xiaofan, Huang, Zhang, Yue, Jia, Wu, Juling, Chen, Sihua, Wang, Jie, Wu, Linyun, Ren, Anchen, Zhang, Peng, Deng, Ke, Wang, Chuangyan, Wu, Xiangchao, Ding, Ping, Ye, Jiahong, Xia	No
Increased Calcific Aortic Valve Disease in response to a diabetogenic, procalcific diet in the LDLr-/ApoB100/100mouse model	Cardiovascular Pathology	https://doi.org/10.1016/j.carpath.2018.02.002	2018	Marta, Scatena, Melissa F., Jackson, Mei Y., Speer, Elizabeth M., Leaf, Mary C., Wallingford, Cecilia M., Giachelli	No
Lipid-Lowering Therapy With Ezetimibe Decreases Spontaneous Atherothrombotic Occlusions in a Rabbit Model of Plaque Erosion	Arteriosclerosis, Thrombosis, and Vascular Biology	http://atvb.ahajournals.org/lookup/doi/10.1161/ATVBAHA.117.310244	2018	Katsuya, Honda, Tetsuya, Matoba, Yoshibumi, Antoku, Jun-ichiro, Koga, Ikuyo, Ichi, Kaku, Nakano, Hiroyuki, Tsutsui, Kensuke, Egashira	No
Effects of teriparatide on morphology of aortic calcification in aged hyperlipidemic mice	American Journal of Physiology-Heart and Circulatory Physiology	http://www.physiology.org/doi/10.1152/ajpheart.00718.2017	2018	Jeffrey J, Hsu, Jinxiu, Lu, Soban, Umar, Jason T, Lee, Rajan, Kulkarni, Yichen, Ding, Chih-Chiang, Chang, Tzung K., Hsiai, Akishige, Hokugo, Ioannis, Gkouveris, Sotirios, Tetradis, Ichiro, Nishimura, Linda L., Demer, Yin, Tintut	No
In vitro photoacoustic spectroscopy of pulsatile blood flow: probing the interrelationship between red blood cell aggregation and oxygen saturation	Journal of Biophotonics	http://doi.wiley.com/10.1002/jbio.201700300	2018	Tae-Hoon, Bok, Eno, Hysi, Michael C., Kolios	No
Lack of T-bet reduces monocytic interleukin-12 formation and accelerates thrombus resolution in deep vein thrombosis	Scientific Reports		2018	Tanja, Schönfelder, Moritz, Brandt, Sabine, Kossmann, Tanja, Knopp, Thomas, Münzel, Ulrich, Walter, Susanne H., Karbach, Philip, Wenzel	No
Elevated 20-HETE in metabolic syndrome regulates arterial stiffness and systolic hypertension via MMP12 activation	Journal of Molecular and Cellular Cardiology	https://doi.org/10.1016/j.yjmcc.2018.02.005	2018	Amanda, Soler, Ian, Hunter, Gregory, Joseph, Rebecca, Hutcheson, Brenda, Hutcheson, Jenny, Yang, Frank Fan, Zhang, Sachindra Raj, Joshi, Chastity, Bradford, Katherine H., Gotlinger, Rachana, Maniyar, John R., Falck, Spencer, Proctor, Michal Laniado, Schwartzman, Sachin A., Gupta, Petra, Roci	No
Protein-1 J in Smooth Muscle Cells Protects Mice From Abdominal Aortic Aneurysms			2018	Jenny, Lutshumba, Shu, Liu, Yu, Zhong, Tianfei, Hou, Alan, Daugherty, Hong, Lu, Zhenheng, Guo, Ming C, Gong	No
Cell Type-Specific Contributions of the Angiotensin II Type 1a Receptor to Aorta Homeostasis and Aneurysmal Disease	Arteriosclerosis, Thrombosis, and Vascular Biology	http://atvb.ahajournals.org/lookup/doi/10.1161/ATVBAHA.117.310609	2018	Josephine, Galatioto, Cristina I., Caescu, Jens, Hansen, Jason, Cook, Irving, Miramontes, Ravi, Iyengar, Francesco, Ramirez	No
Upregulation of Vascular Endothelial Growth Factor in Amniotic Fluid Stem Cells Enhances Their Potential to Attenuate Lung Injury in a Preterm Rabbit Model of Bronchopulmonary Dysplasia	Neonatology		2018	Julio, Jiménez, Flore, Lesage, Jute, Richter, Taro, Nagatomo, Thomas, Salaets, Silvia, Zia, Marina Gabriela, Mori Da Cunha, Jeroen, Vanoirbeek, Jan A., Deprest, Jaan, Toelen	No

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A context-specific cardiac β-catenin and GATA4 interaction influences TCF7L2 occupancy and remodels chromatin driving disease progression in the adult heart	Nucleic Acids Research	https://academic.oup.com/nar/advance-article/doi/10.1093/nar/gky049/4831081	2018	Lavanya M, Iyer, Sankari, Nagarajan, Monique, Woelfer, Eric, Schoger, Sara, Khadjeh, Maria Patapia, Zafiriou, Vijayalakshmi, Kari, Jonas, Herting, Sze Ting, Pang, Tobias, Weber, Franziska S, Rathjens, Thomas H, Fischer, Karl, Toischer, Gerd, Hasenfuss, Claudia, Noack, Steven A, Johnsen, Laura C, Zelarayán	No
The complement C3a-C3aR axis promotes development of thoracic aortic dissection via regulation of MMP2 expression	Journal of Immunology		2018	W., Ren, Y., Liu, X., Wang, C., Piao, Y., Ma, S., Qiu, L., Jia, B., Chen, Y., Wang, W., Jiang, S., Zheng, C., Liu, N., Dai, F., Lan, H., Zhang, W.-C., Song, J., Du	No
Copper sulfide nanoparticles as a photothermal switch for TRPV1 signaling to attenuate atherosclerosis	Nature Communications	http://dx.doi.org/10.1038/s41467-017-02657-z	2018	Wen, Gao, Yuhui, Sun, Michelle, Cai, Yujie, Zhao, Wenhua, Cao, Zhenhua, Liu, Guanwei, Cui, Bo, Tang	No
The large-conductance voltage- and Ca²⁺-activated K⁺ channel and its γ1-subunit modulate mouse uterine artery function during pregnancy	The Journal of Physiology	http://doi.wiley.com/10.1113/jp274524	2018	Ramón A., Lorca, Monali, Wakle-Prabakaran, William E, Freeman, Meghan K, Pillai, Sarah K, England	No
Red blood cell antibody-induced anemia causes differential degrees of tissue hypoxia in kidney and brain	American Journal of Physiology-Regulatory, Integrative and Comparative Physiology	http://www.physiology.org/doi/10.1152/ajpregu.00182.2017	2018	Nikhil, Mistry, C. David, Mazer, John G., Sled, Alan H., Lazarus, Lindsay S., Cahill, Max, Solish, Yu-Qing, Zhou, Nadya, Romanova, Alexander G. M., Hare, Allan, Doctor, Joseph A., Fisher, Keith R., Brunt, Jeremy A., Simpson, Gregory M. T., Hare	No
Diet-induced obesity alters the maternal metabolome and early placenta transcriptome and decreases placenta vascularity in the mouse	Biology of Reproduction	https://academic.oup.com/biolreprod/advance-article-abstract/doi/10.1093/biolre...	2018	Tami J, Stuart, Kathleen O', Neill, David, Condon, Issac, Sasson, Payel, Sen, Yunwei, Xia, Rebecca A, Simmons	No
Pulmonary vascular dysfunction secondary to pulmonary arterial hypertension: Insights gained through retrograde perfusion	American Journal of Physiology-Lung Cellular and Molecular Physiology	http://www.physiology.org/doi/10.1152/ajplung.00201.2017	2018	Chun, Zhou, Edward S, Crockett, Lynn, Batten, Ivan F., McMurtry, Troy, Stevens	No
Simultaneous ablation of uterine natural killer cells and uterine mast cells in mice leads to poor vascularization and abnormal doppler measurements that compromise fetal well-being	Frontiers in Immunology		2018	Nicole, Meyer, Thomas, Schüler, Ana Claudia, Zenclussen	No
Diabetes Reduces Severity of Aortic Aneurysms Depending on the Presence of Cell Division Autoantigen 1 (CDA1)	Diabetes	http://diabetes.diabetesjournals.org/lookup/doi/10.2337/db17-0134	2018	Jiaze, Li, Pacific, Huynh, Aozhi, Dai, Tieqiao, Wu, Yugang, Tu, Bryna, Chow, Helen, Kiriazis, Xiaojun, Du, Leon A., Bach, Jennifer L., Wilkinson-Berka, Erik, Biros, Philip, Walker, Maria, Nataatmadja, Malcolm, West, Jonathan, Golledge, Terri J., Allen, Mark E., Cooper, Zhonglin, Chai	No
Angiotensin-(1-7)-induced Mas receptor activation attenuates atherosclerosis through a nitric oxide-dependent mechanism in apolipoproteinE-KO mice	Pflügers Archiv European Journal of Physiology		2018	Guang, Yang, Geoffrey, Istas, Sascha, Höges, Mina, Yakoub, Ulrike, Hendgen-Cotta, Tienush, Rassaf, Ana, Rodriguez-Mateos, Lydia, Hering, Maria, Grandoch, Evanthis, Mergia, Lars Christian, Rump, Johannes, Stegbauer	No
Suppression of aortic expansion and contractile recovery in a rat abdominal aortic aneurysm model by biodegradable gelatin hydrogel sheet incorporating basic fibroblast growth factor	Heart and Vessels	https://doi.org/10.1007/s00380-017-1114-0	2017	Norikazu, Kawai, Hisashi, Iwata, Katsuya, Shimabukuro, Narihiro, Ishida, Hiroki, Ogura, Etsuji, Umeda, Kiyoshi, Doi	No

Title	Journal	Link	Publication date	References	Top Paper
Alterations of Ocular Hemodynamics Impair Ophthalmic Vascular and Neuroretinal Function	The American Journal of Pathology	http://linkinghub.elsevier.com/retrieve/pii/S0002944017310295	2018	Shu-Huai, Tsai, Wankun, Xie, Min, Zhao, Robert H., Rosa, Travis W., Hein, Lih, Kuo	No
Alternative RNA splicing in the endothelium mediated in part by Rbfox2 regulates the arterial response to low flow	eLife	https://elifesciences.org/articles/29494	2018	Patrick A, Murphy, Vincent L, Butty, Paul L, Boutz, Shahinoor, Begum, Amy L, Kimble, Phillip A, Sharp, Christopher B, Burge, Richard O, Hynes	No
Identification of type IV collagen exposure as a molecular imaging target for early detection of thoracic aortic dissection	Theranostics	http://www.thno.org/v08p0437.htm	2018	Ke, Xu, Chen, Xu, Yanzhenzi, Zhang, Feiran, Qi, Bingran, Yu, Ping, Li, Lixin, Jia, Yulin, Li, Fu-jian, Xu, Jie, Du	No
Cortistatin attenuates angiotensin II-induced abdominal aortic aneurysm through inactivation of the ERK1/2 signaling pathways	Biochemical and Biophysical Research Communications	https://doi.org/10.1016/j.bbrc.2017.12.033	2017	Hao, Chai, Zhong Hao, Tao, Wen, Chen, Yue Yue, Xu, Fuhua, Huang, Cun Hua, Su, Xin, Chen	No
Differential Effects of EGFL6 on Tumor versus Wound Angiogenesis	Cell Reports	https://doi.org/10.1016/j.celrep.2017.11.020	2017	Kyunghee, Noh, Lingegowda S., Mangala, Hee Dong, Han, Ningyan, Zhang, Sunila, Pradeep, Sherry Y., Wu, Shaolin, Ma, Edna, Mora, Rajesha, Rupaimoole, Dahai, Jiang, Yunfei, Wen, Mian M.K., Shahzad, Yasmin, Lyons, Min Soon, Cho, Wei, Hu, Archana S., Nagaraja, Monika, Haemmerle, Celia S.L., Mak, Xiuhui, Chen, Kshipra M., Gharpure, Hui, Deng, Wei, Xiong, Charles V., Kingsley, Jinsong, Liu, Nicholas, Jennings, Michael J., Birrer, Richard R., Bouchard, Gabriel, Lopez-Berestein, Robert L., Coleman, Zhiqiang, An, Anil K., Sood	No
The Effect of Different L-Carnitine Administration Routes on the Development of Atherosclerosis in ApoE Knockout Mice	Molecular Nutrition & Food Research	http://doi.wiley.com/10.1002/mnfr.201700299	2018	Ying, Zhao, Ning, Yang, Jinmao, Gao, Hanying, Li, Wei, Cai, Xin, Zhang, Yongqiang, Ma, Xiulong, Miu, Guohong, Yang, Xin, Zhou, Yuming, Li	No
Loss of vascular smooth muscle cell autophagy exacerbates angiotensin II-associated aortic remodeling	Journal of Vascular Surgery	https://doi.org/10.1016/j.jvs.2017.08.086	2017	Azza, Ramadan, Krishna K., Singh, Adrian, Quan, Pamela J., Plant, Mohammed, Al-Omran, Hwee, Teoh, Subodh, Verma	No
Renal Resistive Index as a Novel Indicator for Renal Complications in High-Fat Diet-Fed Mice	Kidney and Blood Pressure Research	https://www.karger.com/Article/FullText/485781	2017	Hairong, Xu, Zejun, Ma, Shan, Lu, Rui, Li, Liangkun, Lyu, Lexi, Ding, Qiulun, Lu	No
Molecularly Engineered Theranostic Nanoparticles for Thrombosed Vessels: H2O2-Activatable Contrast-Enhanced Photoacoustic Imaging and Antithrombotic Therapy	ACS Nano	http://pubs.acs.org/doi/10.1021/acsnano.7b06560	2017	EUNKYEONG, JUNG, Changsun, Kang, JEONGHUN, LEE, Donghyuck, Yoo, Do Won, Hwang, Dohyun, Kim, Seong-Cheol, Park, Sang Kyoo, Lim, Chulgyu, Song, Dongwon, Lee	No
Non-invasive longitudinal monitoring of angiogenesis in a murine full-thickness cutaneous wound healing model using high-resolution three-dimensional ultrasound imaging	Skin Research and Technology		2017	K., Mukai, W., Zhu, Y., Nakajima, M., Kobayashi, T., Nakatani	No
Intravascular application of electrocautery in a rabbit model of abdominal aortic endarterectomy			2017	Chuan, Wang, Y I, Xin, N A, Li, Diankun, Li, Jingxing, Li, Chengxiong, Gu	No
Angiotensin II Infusion Does Not Cause Abdominal Aortic Aneurysms in Apolipoprotein E-Deficient Rats	Journal of Vascular Research		2018	Evan H, Phillips, S, Chang, Sydney, Gorman, Hamna J, Qureshi, F K, Ejendal, Tamara L, Kinzer-ursem, A Nicole, Blaize, J, Goergen	No

Title	Journal	Link	Publication date	References	Top Paper
Unspliced XBP1 Confers VSMC Homeostasis and Prevents Aortic Aneurysm Formation via FoxO4 Interaction	Circulation Research		2017	Guizhen, Zhao, Yi, Fu, Zeyu, Cai, Fang, Yu, Ze, Gong, Rongbo, Dai, Yanhua, Hu, Lingfang, Zeng, Qingbo, Xu, Wei, Kong	No
Angiotensin II infusion into ApoE^{-/-} mice: a model for aortic dissection rather than abdominal aortic aneurysm?	Cardiovascular Research	http://academic.oup.com/circovasres/article/113/10/1230/3895755/Angiotensin-II...	2017	Bram, Trachet, Lydia, Aslanidou, Alessandra, Piersigilli, Rodrigo A., Fraga-Silva, Jessica, Sordet-Dessimoz, Pablo, Villanueva-Perez, Marco F.M., Stamparoni, Nikolaos, Stergiopoulos, Patrick, Segers	No
High-Fat, High-Sugar Diet-Induced Subendothelial Matrix Stiffening Is Mitigated by Exercise	Cardiovascular Engineering and Technology	http://link.springer.com/10.1007/s13239-017-0335-9	2017	Julie C., Kohn, Julian, Azar, Francesca, Seta, Cynthia A., Reinhart-King	No
Rho Kinase Inhibitor, Fasudil, Attenuates Contrast-Induced Acute Kidney Injury	Basic & Clinical Pharmacology & Toxicology		2018	Yiming, Wang, Hao, Zhang, Zhijian, Yang, Dengshun, Miao, Dingguo, Zhang	No
DBZ (Danshensu Bingpian Zhi), a novel natural compound derivative, attenuates atherosclerosis in apolipoprotein E-Deficient mice	Journal of the American Heart Association		2017	Jing, Wang, Pengfei, Xu, Xinni, Xie, Jiao, Li, Jun, Zhang, Jialin, Wang, Fan, Hong, Jian, Li, Youyi, Zhang, Yao, Song, Xiaohui, Zheng, Yonggong, Zhai	No
Improving in vivo outcomes of decellularized vascular grafts via incorporation of a novel extracellular matrix	Biomaterials		2017	Nina J., Kristofik, Lingfeng, Qin, Nicole E, Calabro, Sashka, Dimitrievska, Guangxin, Li, George, Tellides, Laura E, Niklason, Themis R, Kyriakides	No
Targeting Interleukin-1β Protects from Aortic Aneurysms Induced by Disrupted Transforming Growth Factor β Signaling	Immunity	https://doi.org/10.1016/j.immuni.2017.10.016	2017	Francesco, Da Ros, Raimondo, Carnevale, Giuseppe, Cifelli, Dario, Bizzotto, Manuel, Casaburo, Marialuisa, Perrotta, Lorenzo, Carnevale, Iolanda, Vinciguerra, Stefania, Fardella, Roberta, Iacobucci, Giorgio M, Bressan, Paola, Braghetta, Giuseppe, Lembo, Daniela, Carnevale	No
Dietary potassium regulates vascular calcification and arterial stiffness	JCI Insight	https://insight.jci.org/articles/view/94920	2017	Yong, Sun, Chang Hyun, Byon, Youfeng, Yang, Wayne E, Bradley, Louis J., Dell'Italia, Paul W, Sanders, Anupam, Agarwal, Hui, Wu, Yabing, Chen	No
Obesity-induced vascular dysfunction and arterial stiffening requires endothelial cell arginase 1	Cardiovascular Research		2017	Anil, Bhatta, Lin, Yao, Zhimin, Xu, Haroldo A, Toque, Jijun, Chen, Reem T, Atawia, Abdelrahman Y, Fouda, Zsolt, Bagi, Rudolf, Lucas, Ruth B., Caldwell, Robert W, Caldwell	No
In vivo MR-angiography for the assessment of aortic aneurysms in an experimental mouse model on a clinical MRI scanner: Comparison with high-frequency ultrasound and histology	PLOS ONE	http://dx.plos.org/10.1371/journal.pone.0178682	2017	Christian H P, Jansen, Carolin, Reimann, Julia, Brangsch, René M., Botnar, Marcus R, Makowski	No
Comparison of very-high-frequency ultrasound assessment of radial arterial wall layers after first and repeated transradial coronary procedures	Journal of Geriatric Cardiology		2017	Bei Bei, Zhang, Yu Jie, Zhou, Jie, Du, Shi Wei, Yang, Zhi Jiang, Wang, Hua, Shen, Zhi Ming, Zhou	No
Notch1 haploinsufficiency causes ascending aortic aneurysms in mice.	JCI insight		2017	Sara N, Koenig, Stephanie, LaHaye, James D, Feller, Patrick, Rowland, Kan N, Hor, Aaron J, Trask, Paul M, Janssen, Freddy, Radtke, Brenda, Lilly, Vidu, Garg	No
Computer-Aided Evaluation of Blood Vessel Geometry From Acoustic Images	Journal of Ultrasound in Medicine		2017	Stefan B, Lindstr, Fredrik, Uhlin, Niclas, Bjarnegård, Micael, Gylling	No

Title	Journal	Link	Publication date	References	Top Paper
Chronic exposure to electronic cigarette (E-cig) results in impaired cardiovascular function in mice	Journal of Applied Physiology		2018	I Mark, Olfert, Evan, Devallance, Hannah, Hoskinson, Kayla W, Branyan, Stuart, Clayton, Christopher R, Pitzer, D Patrick, Sullivan, Matthew J, Breit, Zhongxin, Wu, W Kyle, Mandler, Brett H, Erdreich, Barbara S, Ducatman, Randall W, Bryner, Piyali, Dasgupta, Paul D, Chantler	No
Possible type 1 diabetes risk prediction: Using ultrasound imaging to assess pancreas inflammation in the inducible autoimmune diabetes BBDR model	PLoS One		2017	Frederick R, Roberts, Clinton, Hupple, Elaine, Norowski, Nicole C, Walsh, Natalia, Przewozniak, K E, Aryee, F M, Van Dessel, Agata, Jurczyk, D M, Harlan, Dale L, Greiner, Rita, Bortell, C X, Yang	No
Eph-B4 regulates adaptive venous remodeling to improve arteriovenous fistula patency	Scientific Reports	http://dx.doi.org/10.1038/s41598-017-13071-2	2017	Clinton D, Protack, Trenton R, Foster, Takuya, Hashimoto, Kota, Yamamoto, Monica Y, Lee, Jan R, Kraehling, Hualong, Bai, Haidi, Hu, Toshihiko, Isaji, Jeans M, Santana, Mo, Wang, William C, Sessa, Alan, Dardik	No
Photoacoustic Imaging: A Novel Tool for Detecting Carotid Artery Thrombosis in Mice	Journal of Vascular Research		2017	Bing, Li, Cong, Fu, Genshan, Ma, Quli, Fan, Yuyu, Yao	No
Trimethylamine-N-oxide induces vascular inflammation by activating the NLRP3 inflammasome through the SIRT3-SOD2-mtROS signaling pathway	Journal of the American Heart Association		2017	Ming Liang, Chen, Xiao Hui, Zhu, Li, Ran, He Dong, Lang, Long, Yi, Man Tian, Mi	No
Altered Penile Caveolin Expression in Diabetes: Potential Role in Erectile Dysfunction	Journal of Sexual Medicine	https://doi.org/10.1016/j.jsxm.2017.08.006	2017	Jay, Parikh, Alice, Zemijic-Harpf, Johnny, Fu, Dimosthenis, Giamouridis, Tung Chin, Hsieh, Adam, Kassan, Karnam S, Murthy, Valmik, Bhargava, Hemal H, Patel, M Raj, Rajasekaran	No
Toll-like receptor-4 signaling pathway in aorta aging and diseases: "its double nature"	Journal of Molecular and Cellular Cardiology	http://dx.doi.org/10.1016/j.yjmcc.2017.06.011	2017	Carmela Rita, Balistreri, Giovanni, Ruvoilo, Domenico, Lio, Rosalinda, Madonna	No
Recombinant Decorin Fusion Protein Attenuates Murine Abdominal Aortic Aneurysm Formation and Rupture	Scientific Reports		2017	Yue, Shen, Valerio, Russo, Matthew R, Zeglinski, Stephanie L, Sellers, Zhengguo, Wu, Cameron, Oram, Stephanie, Santacruz, Yulia, Merkulova, Christopher, Turner, Keerit, Tauh, Hongyan, Zhao, Tatjana, Bozin, Lubos, Bohunek, Haishan, Zeng, Michael A, Seidman, R Chris, Bleackley, Bruce M., McManus, Erkki, Ruoslahti, Tero A.H., Järvinen, David J., Granville	No
Monitoring inflammation injuries in the progression of atherosclerosis with contrast enhanced ultrasound molecular imaging			2017	Ruiying, Sun, Jie, Tian, Jun, Zhang, Liping, Wang, Jing, Guo, Yani, Liu	No
Effects of Rotigaptide and RIC on Ischemia Reperfusion Injury in the In Vitro Rabbit Heart	Cardiovascular Pharmacology: Open Access	https://www.esciencecentral.org/journals/effects-of-rotigaptide-and-ric-on-isch...	2017	Salman, R, Johnsen, J, Lassen, TR, Hansen, RS, Botker, HE, Schmidt, MR	No
Deletion of the NR4A nuclear receptor NOR1 in hematopoietic stem cells reduces inflammation but not abdominal aortic aneurysm formation	BMC Cardiovascular Disorders		2017	Hua, Qing, Karrie L, Jones, Elizabeth B, Heywood, Hong, Lu, Alan, Daugherty, Dennis, Brummer	No
5-HT causes splanchnic venodilation	American Journal of Physiology - Heart and Circulatory Physiology	http://ajpheart.physiology.org/content/313/3/H676	2017	Bridget M, Seitz, Hakan S, Orer, Teresa, Krieger-Burke, Emma S, Darios, Janice M, Thompson, Gregory D, Fink, Stephanie W., Watts	No

Title	Journal	Link	Publication date	References	Top Paper
Deficiency of CCAAT/enhancer-binding protein homologous protein (CHOP) prevents diet-induced aortic valve calcification in vivo	Aging Cell		2017	Zhejun, Cai, Baoqing, Liu, Jia, Wei, Zurong, Fu, Yidong, Wang, Yaping, Wang, Jian, Shen, Liangliang, Jia, Shengnan, Su, Xiaoya, Wang, Xiaoping, Lin, Han, Chen, Fei, Li, Jian'an, Wang, Meixiang, Xiang	No
Aortic microcalcification is associated with elastin fragmentation in Marfan syndrome	Journal of Pathology		2017	Shaynah, Wanga, Stijntje, Hibender, Yanto, Ridwan, Cindy, van Roomen, Mariska, Vos, Ingeborg, van der Made, Nicole, van Vliet, Romy, Franken, Luigi A.M.J.G., van Riel, Maarten, Groenink, Aeilko H., Zwinderman, Barbara J.M., Mulder, Carlie J.M., de Vries, Jeroen, Essers, Vivian, de Waard	No
Characterization of age-related penile microvascular hemodynamic impairment using laser speckle contrast imaging: Possible role of increased fibrogenesis	Physiological Reports		2017	Seung Ryeol, Lee, Ki Ho, Kim, Ho Song, You, Johnny, Fu, Tung Chin, Mike Hsieh, Valmik, Bhargava, M. Raj, Rajasekaran	No
Fetal and Neonatal Stem Cells Early Intravenous Delivery of Human Brain Stromal Cells Modulates Systemic Inflammation and Leads to Vasoprotection in Traumatic Spinal Cord Injury	Stem Cells Translational Medicine	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4954452/pdf/sctm_20150295.pdf	2016	Anna, Badner, Reaz, Vawda, Alex, Laliberte, James, Hong, Mirriam, Mikhail, Alejandro, Jose, Rachel, Dragas, Michael, Fehlins	No
HPW-RX40 prevents human platelet activation by attenuating cell surface protein disulfide isomerases	Redox Biology	http://dx.doi.org/10.1016/j.redox.2017.05.019	2017	Po Hsiung, Kung, Pei Wen, Hsieh, Ying Ting, Lin, Jia Hau, Lee, I. Hua, Chen, Chin Chung, Wu	No
Divergent coronary flow responses to uridine adenosine tetraphosphate in atherosclerotic ApoE knockout mice	Purinergic Signalling		2017	Bunyen, Teng, Hicham, Labazi, Changyan, Sun, Yan, Yang, Xiaorong, Zeng, S. Jamal, Mustafa, Zhichao, Zhou	No
Moderately Elevated Homocysteine Does Not Contribute to Thoracic Aortic Aneurysm in Mice	The Journal of Nutrition	http://jn.nutrition.org/lookup/doi/10.3945/jn.117.251173	2017	Jasmin, Roohi, Benjamin, Kang, David, Bernard, Djahida, Bedja, Harry C, Dietz, Lawrence C, Brody	No
Customization of biliary-pancreatic limb length to modulate and sustain anti-diabetic effect of gastric bypass surgery	American Journal of Physiology-Gastrointestinal and Liver Physiology	http://www.physiology.org/doi/10.1152/ajpgi.00276.2017	2017	Atanu, Pal, David B, Rhoads, Ali, Tavakkoli	No
Expanding Acquisition and Clutter Filter Dimensions for Improved Perfusion Sensitivity	IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control		2017	Minwoo, Kim, Craig K, Abbey, Jamila, Hedhli, Lawrence W, Dobrucki, Michael F, Insana	No
Loss of Smooth Muscle α-Actin Leads to NF-κB-Dependent Increased Sensitivity to Angiotensin II in Smooth Muscle Cells and Aortic Enlargement Novelty and Significance	Circulation Research	http://circres.ahajournals.org/lookup/doi/10.1161/CIRCRESAHA.117.310563	2017	Jiyuan, Chen, Andrew, Peters, Christina L., Papke, Carlos, Villamizar, Lea-Jeanne, Ringuette, Jumei, Cao, Shanzhi, Wang, Shuangtao, Ma, Limin, Gong, Katerina L., Byanova, Jian, Xiong, Michael X., Zhu, Rosalinda, Madonna, Patrick, Kee, Yong-Jian, Geng, Allan R., Brasier, Elaine C., Davis, Siddharth, Prakash, Callie S., Kwartler, Dianna M., Milewicz	No
Ultrasound-based Pulse Wave Velocity Evaluation in Mice	Journal of Visualized Experiments	http://www.jove.com/video/54362/ultrasound-based-pulse-wave-velocity-evaluation...	2017	Nicole, Di Lascio, Claudia, Kusmic, Francesco, Stea, Francesco, Fatta	No
Reduced arterial elasticity due to surgical skeletonization is ameliorated by abluminal PEG hydrogel	Bioengineering & Translational Medicine	http://doi.wiley.com/10.1002/btm2.10060	2017	Karyn G, Robinson, Rebecca A, Scott, Anne M, Heseck, Edward J, Woodford, Wafa, Amir, Thomas A, Planchon, Kristi L, Kiick, Robert E, Akins	No

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Collagen External Scaffolds Mitigate Intimal Hyperplasia and Improve Remodelling of Vein Grafts in a Rabbit Arteriovenous Graft Model	BioMed Research International	https://www.hindawi.com/journals/bmri/2017/7473437/	2017	Haiming, Li, Shoudong, Chai, Longsheng, Dai, Chengxiang, Gu	No
Epoetin beta pegol ameliorates flow-mediated dilation with improving endothelial nitric oxide synthase coupling state in nonobese diabetic rats	Cardiovascular Therapeutics	http://doi.wiley.com/10.1111/1755-5922.12250	2017	Kenichi, Serizawa, Kenji, Yogo, Yoshihito, Tashiro, Ryohei, Kawasaki, Koichi, Endo, Yasushi, Shimonaka, Michinori, Hirata	No
Long-term miR-29b suppression reduces aneurysm formation in a Marfan mouse model	Physiological Reports	http://physreports.physiology.org/lookup/doi/10.14814/phy2.13257	2017	Homare, Okamura, Fabian, Emrich, Jeffrey, Trojan, Peter, Chiu, Alex R., Dalal, Mamoru, Arakawa, Tetsuya, Sato, Kiril, Penov, Tiffany, Koyano, Albert, Pedroza, Andrew J., Connolly, Marlene, Rabinovitch, Cristina, Alvira, Michael P., Fischbein	No
Inhibition or deletion of angiotensin II type 1 receptor suppresses elastase-induced experimental abdominal aortic aneurysms	Journal of Vascular Surgery	http://dx.doi.org/10.1016/j.jvs.2016.12.110	2017	Haojun, Xuan, Baohui, Xu, Wei, Wang, Hiroki, Tanaka, Naoki, Fujimura, Masaaki, Miyata, Sara A., Michie, Ronald L., Dalman	No
Loss of MURC/Cavin-4 induces JNK and MMP-9 activity enhancement in vascular smooth muscle cells and exacerbates abdominal aortic aneurysm	Biochemical and Biophysical Research Communications	http://dx.doi.org/10.1016/j.bbrc.2017.04.096	2017	Kotaro, Miyagawa, Takehiro, Ogata, Tomomi, Ueyama, Takeru, Kasahara, Naohiko, Nakanishi, Daisuke, Naito, Takuya, Taniguchi, Tetsuro, Hamaoka, Naoki, Maruyama, Masahiro, Nishi, Taizo, Kimura, Hiroyuki, Yamada, Hiroki, Aoki, Satoaki, Matoba	No
Chronic PARP-1 inhibition reduces carotid vessel remodeling and oxidative damage of the dorsal hippocampus in spontaneously hypertensive rats	PLOS ONE	http://dx.plos.org/10.1371/journal.pone.0174401	2017	Krisztian, Eros, Klara, Magyar, Laszlo, Deres, Arpad, Skazal, Adam, Riba, Zoltan, Vamos, Tamas, Kalai, Ferenc, Gallyas, Balazs, Sumegi, Kalman, Toth, Robert, Halmosi	No
Development of a Glycosaminoglycan Derived, Selectin Targeting Anti-Adhesive Coating to Treat Endothelial Cell Dysfunction	Pharmaceuticals	http://www.mdpi.com/1424-8247/10/2/36	2017	James, Wodicka, Andrea, Chambers, Gurneet, Sangha, Craig, Goergen, Alyssa, Panitch	No
Large is required for normal astrocyte migration and retinal vasculature development	Cell & Bioscience	http://cellandbioscience.biomedcentral.com/articles/10.1186/s13578-017-0143-9	2017	Min, Zhou, Herui, Wang, Hui, Ren, Rui, Jiang, Chi, Zhang, Xiaohui, Wu, Gezhi, Xu	No
Oral chromium picolinate impedes hyperglycemia-induced atherosclerosis and inhibits proatherogenic protein TSP-1 expression in STZ-induced type 1 diabetic ApoE -/- mice	Scientific Reports	http://dx.doi.org/10.1038/srep45279	2017	Rituparna, Ganguly, Soumyadip, Sahu, Vahagn, Ohanyan, Rebecca, Haney, Ronaldo J., Chavez, Shivani, Shah, Siri, Yalamanchilli, Priya, Raman	No
Role of Bone Marrow Mononuclear Cell Seeding for Nanofiber Vascular Grafts	Tissue Engineering Part A	http://online.liebertpub.com/doi/10.1089/ten.tea.2017.0044	2017	Takuma, Fukunishi, Cameron A., Best, Chin Siang, Ong, Tyler, Groehl, James, Reinhardt, Tai, Yi, Hideki, Miyachi, Huaitao, Zhang, Toshiharu, Shinoka, Christopher K., Breuer, Jed, Johnson, Narutoshi, Hibino	No
The Hippo signaling pathway: a potential therapeutic target is reversed by a Chinese patent drug in rats with diabetic retinopathy	BMC Complementary and Alternative Medicine	http://bmccomplementalternmed.biomedcentral.com/articles/10.1186/s12906-017-167...	2017	Gai-mei, Hao, Tian-tian, Lv, Yan, Wu, Hong-liang, Wang, Wei, Xing, Yong, Wang, Chun, Li, Zi-jian, Zhang, Zheng-lin, Wang, Wei, Wang, Jing, Han	No
Fibrin-Targeted and H₂O₂-Responsive Nanoparticles as a Theranostics for Thrombosed Vessels	ACS Nano	http://pubs.acs.org/doi/abs/10.1021/acsnano.7b02308	2017	Changsun, Kang, Sian, Gwon, ChulGyu, Song, Peter M., Kang, Seong-Cheol, Park, Jongho, Jeon, Do Won, Hwang, Dongwon, Lee	No

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Effect of chronic estradiol plus progesterone treatment on experimental arterial and venous thrombosis in mouse	PLOS ONE	http://dx.plos.org/10.1371/journal.pone.0177043	2017	Marie-Cécile, Valéra, Emmanuelle, Noirit-Esclassan, Marion, Dupuis, Melissa, Buscato, Alexia, Vinel, Maeva, Guillaume, Anne, Briaux, Cédric, Garcia, Thibaut, Benoit, Olivier, Lairez, Coralie, Fontaine, Bernard, Payrastre, Jean-François, Arnal	No
Establishment and evaluation of a reversible two-kidney, one-clip renovascular hypertensive rat model	Experimental and Therapeutic Medicine	https://www.spandidos-publications.com/	2017	Li-Qiang, Li, Jian, Zhang, Rong, Wang, Jian-Xin, Li, Yong-Quan, Gu	No
Regional and systemic hemodynamic responses following the creation of a murine arteriovenous fistula	AJP: Renal Physiology	http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=3191805&tool=pmcentr...	2011	Lu, Kang, Satsuki, Yamada, Melissa C, Hernandez, Anthony J, Croatt, Joseph P, Grande, Julio P, Juncos, Gregory M, Vercellotti, Robert P, Hebbel, Zvonimir S, Katusic, Andre, Terzic, Karl a, Nath	No
Cytoglobin regulates blood pressure and vascular tone through nitric oxide metabolism in the vascular wall	Nature Communications	http://dx.doi.org/10.1038/ncomms14807	2017	Xiaoping, Liu, Mohamed A., El-Mahdy, James, Boslett, Saradhadevi, Varadharaj, Craig, Hemann, Tamer M, Abdelghany, Raed S, Ismail, Sean C, Little, Danlei, Zhou, Le Thi Thanh, Thuy, Norifumi, Kawada, Jay L, Zweier	No
A comparative study of the characterization of miR-155 in knockout mice	PLOS ONE	http://dx.plos.org/10.1371/journal.pone.0173487	2017	Dong, Zhang, Yongchun, Cui, Bin, Li, Xiaokang, Luo, Bo, Li, Yue, Tang	No
Sustained Placental Growth Factor-2 Treatment Does Not Aggravate Advanced Atherosclerosis in Ischemic Cardiomyopathy	Journal of Cardiovascular Translational Research	http://link.springer.com/10.1007/s12265-017-9742-4	2017	Ming, Wu, Peter, Pokreisz, Melissa, Swinnen, Ellen, Caluwe, Hilde, Gilljns, Nina, Vanden Driessche, Andrea, Casazza, Erik, Verbeken, Desire, Collen, Stefan, Janssens	No
A Novel Murine Model of Marfan Syndrome Accelerates Aortopathy and Cardiomyopathy	The Annals of Thoracic Surgery	http://dx.doi.org/10.1016/j.athoracsur.2016.10.077	2017	Nicholas B, Cavanaugh, Lan, Qian, Nicole M, Westergaard, William J, Kutschke, Ella J, Born, Joseph W, Turek	No
Deficient Circumferential Growth Is the Primary Determinant of Aortic Obstruction Attributable to Partial Elastin Deficiency Highlights	Arteriosclerosis, Thrombosis, and Vascular Biology	http://atvb.ahajournals.org/lookup/doi/10.1161/ATVBAHA.117.309079	2017	Yang, Jiao, Guangxin, Li, Arina, Korneva, Alexander W., Caulk, Lingfeng, Qin, Matthew R., Bersi, Qingle, Li, Wei, Li, Robert P., Mecham, Jay D., Humphrey, George, Tellides	No
Murine ultrasound-guided transabdominal para-aortic injections of self-assembling type I collagen oligomers	Journal of Controlled Release	http://dx.doi.org/10.1016/j.jconrel.2016.12.045	2017	Alexa A., Yrineo, Amelia R., Adelsperger, Abigail C., Durkes, Matthew R., Distasi, Sherry L., Voytik-Harbin, Michael P., Murphy, Craig J., Goergen	No
Deletion of Hypoxia-Inducible Factor-1α in Myeloid Lineage Exaggerates Angiotensin II-Induced Formation of Abdominal Aortic Aneurysm	Clinical Science	http://clinsci.org/lookup/doi/10.1042/CS20160865	2017	Yusuke, Takahara, Tomotake, Tokunou, Hiroshi, Kojima, Yoshitaka, Hirooka, Toshihiro, Ichiki	No
In vivo photoacoustic lipid imaging in mice using the second near-infrared window	Biomedical Optics Express	https://www.osapublishing.org/abstract.cfm?URI=boe-8-2-736	2017	Gurneet S., Sangha, Evan H., Phillips, Craig J., Goergen	No
Increased Oxidative Stress and Hypoxia-Inducible Factor-1 Expression during Arteriovenous Fistula Maturation	Annals of Vascular Surgery	http://linkinghub.elsevier.com/retrieve/pii/S089050961730105X	2017	Nirvana, Sadaghianloo, Kota, Yamamoto, Hualong, Bai, Masayuki, Tsuneki, Clinton D., Protack, Michael R., Hall, Serge, Declémy, Réda, Hassen-Khodja, Joseph, Madri, Alan, Dardik	No

Title	Journal	Link	Publication date	References	Top Paper
Serelaxin improves the pathophysiology of placental ischemia in the reduced uterine perfusion pressure rat model of preeclampsia	American Journal of Physiology - Regulatory, Integrative and Comparative Physiology	http://ajpregu.physiology.org/lookup/doi/10.1152/ajpregu.00192.2016	2016	Jose a, Santiago-Font, Lorena M., Amaral, Jessica, Faulkner, Tarek, Ibrahim, Venkata Ramana, Vaka, Mark W, Cunningham, Babbette, LaMarca	No
Nitric oxide mediates aortic disease in mice deficient in the metalloprotease Adams1 and in a mouse model of Marfan syndrome	Nature Medicine	http://www.nature.com/doi/10.1038/nm.4266	2017	Jorge, Oller, Nerea, Méndez-Barbero, E Josue, Ruiz, Silvia, Villahoz, Marjolijn, Renard, Lizet I, Canelas, Ana M, Briones, Rut, Alberca, Noelia, Lozano-Vidal, María A, Hurlé, Dianna, Milewicz, Arturo, Evangelista, Mercedes, Salaices, J Francisco, Nistal, Luis Jesús, Jiménez-Borreguero, Julie, De Backer, Miguel R, Campanero, Juan Miguel, Redondo	No
Mutations in HYAL2, Encoding Hyaluronidase 2, Cause a Syndrome of Orofacial Clefting and Cor Triatriatum Sinister in Humans and Mice	PLOS Genetics	http://dx.plos.org/10.1371/journal.pgen.1006470	2017	Martina M. A., Muggenthaler, Biswajit, Chowdhury, S. Naimul, Hasan, Harold E., Cross, Brian, Mark, Gaurav V., Harlalka, Michael A., Patton, Miho, Ishida, Elijah R., Behr, Sanjay, Sharma, Kenneth, Zahka, Eissa, Faqeh, Brian, Blakley, Mike, Jackson, Melissa, Lees, Vernon, Dolinsky, Leroy, Cross, Philip, Stanier, Claire, Salter, Emma L., Baple, Fowzan S., Alkuraya, Andrew H., Crosby, Barbara, Triggs-Raine, Barry A., Chioza	No
Endothelial Nox4-based NADPH oxidase regulates atherosclerosis via soluble epoxide hydrolase	Biochimica et Biophysica Acta (BBA) - Molecular Basis of Disease	http://dx.doi.org/10.1016/j.bbadis.2017.02.004	2017	Pingping, Hu, Xiaojuan, Wu, Alok R., Khandelwal, Weimin, Yu, Zaicheng, Xu, Lili, Chen, Jian, Yang, Robert M., Weisbrod, Kin Sing Stephen, Lee, Francesca, Seta, Bruce D., Hammock, Richard A., Cohen, Chunyu, Zeng, Xiaoyong, Tong	No
Smart Microbubble Eluting Theranostic Stent for Noninvasive Ultrasound Imaging and Prevention of Restenosis	Small	http://doi.wiley.com/10.1002/smll.201602925	2016	Do Hee, Keum, Jong Hwan, Mun, Byung Woo, Hwang, Jeeseu, Kim, Heejaung, Kim, Woori, Jo, Dong-Heon, Ha, Dong-Woo, Cho, Chulhong, Kim, Sei Kwang, Hahn	No
SRC-1 Regulates Blood Pressure and Aortic Stiffness in Female Mice	PLOS ONE	http://dx.plos.org/10.1371/journal.pone.0168644	2016	Antentor Othrell, Hinton, Yongjie, Yang, Ann P., Quick, Pingwen, Xu, Chitra L., Reddy, Xiaofeng, Yan, Corey L., Reynolds, Qingchun, Tong, Liangru, Zhu, Jianming, Xu, Xander H. T., Wehrens, Yong, Xu, Anilkumar K., Reddy	No
Pentaerythritol tetranitrate (PETN) in-vivo treatment improves oxidative stress and vascular dysfunction by suppression of endothelin-1 signaling in monocrotaline-induced pulmonary hypertension			2017	Sebastian, Steven, Matthias, Oelze, Moritz, Brandt, Elisabeth, Ullmann, Swenja, Kroller-Schon, Tjebo, Heeren, Lan, Tran, Steffan, Daub, Mobin, Dib, Dirk, Stalleicken, Thomas, Munzel, Andreas, Daiber	No
Dual-acting biofunctionalised scaffolds for applications in regenerative medicine	Journal of Materials Science: Materials in Medicine	http://link.springer.com/10.1007/s10856-017-5849-z	2017	Camilo, Chaves, Chuanyu, Gao, Jerome, Hunckler, Moustafa, Elsayy, Josette, Legagneux, Gilles, Renault, Alain Charles, Masquelet, Achala, de Mel	No

Title	Journal	Link	Publication date	References	Top Paper
Dual effects of fructose on ChREBP and FoxO1/3α are responsible for AldoB up-regulation and vascular remodelling	Clinical Science	http://clinsci.org/cgi/doi/10.1042/CS20160251%0Ahttp://www.ncbi.nlm.nih.gov/pub...	2017	Wei, Cao, Tuanjie, Chang, Xiao-Qiang, Li, Rui, Wang, Lingyun, Wu	No
Fetal Alcohol Exposure Alters Blood Flow and Neurological Responses to Transient Cerebral Ischemia in Adult Mice	Alcoholism: Clinical and Experimental Research	http://doi.wiley.com/10.1111/acer.13277	2017	Shameena, Bake, Rachel, Gardner, Joseph D., Tingling, Rajesh C., Miranda, Farida, Sohrabji	No
Female Mice With an XY Sex Chromosome Complement Develop Severe Angiotensin II-Induced Abdominal Aortic AneurysmsClinical Perspective	Circulation	http://circ.ahajournals.org/lookup/doi/10.1161/CIRCULATIONAHA.116.023789	2017	Yasir, Alsiraj, Sean E, Thatcher, Richard, Charnigo, Kuey, Chen, Eric, Blalock, Alan, Daugherty, Lisa A, Cassis	No
Mouse models of deep vein thrombosis	Gefäßschirurgie	http://link.springer.com/10.1007/s00772-016-0227-6	2016	T., Schönfelder, S., Jäckel, P., Wenzel	No
The role of GRIP1 and ephrin B3 in blood pressure control and vascular smooth muscle cell contractility	Scientific Reports	http://www.nature.com/articles/srep38976	2016	Yujia, Wang, Zenghui, Wu, Hongyu, Luo, Junzheng, Peng, John, Raelson, Georg B., Ehret, Patricia B, Munroe, Ekatherina, Stoyanova, Zhao, Qin, Guy, Cloutier, W Edward, Bradley, Tao, Wu, Jian-Zhong, Shen, Shenjiang, Hu, Jiangping, Wu	No
Original Research: Feasibility and safety of two surgical techniques for the development of an animal model of jugular vein occlusion	Experimental Biology and Medicine	http://ebm.sagepub.com/lookup/doi/10.1177/1535370216657446	2017	L., Auletta, A., Greco, S., Albanese, L., Meomartino, M., Salvatore, M., Mancini	No
Maternal vascular responses to hypoxia in a rat model of intrauterine growth restriction	American Journal of Physiology - Regulatory, Integrative and Comparative Physiology	http://ajpregu.physiology.org/lookup/doi/10.1152/ajpregu.00119.2016	2016	Mais M., Aljunaidy, Jude S., Morton, Christy-Lynn, Cooke, Sandra T., Davidge	No
Influence of shear stress magnitude and direction on atherosclerotic plaque composition	Royal Society Open Science		2016	Ryan M, Pedrigi, Vikram V, Mehta, M, Bovens, Zahra, Mohri, Christian Bo, Poulsen, Jordi L, Tremoleda, Leila, Towhidi, De, Silva, Enrico, Petretto, Rob, Krams	No
Toll-like receptor 4 mutation suppresses hyperhomocysteinemia-induced hypertension	American Journal of Physiology - Cell Physiology	http://ajpcell.physiology.org/lookup/doi/10.1152/ajpcell.00088.2016	2016	Anastasia, Familitseva, Pankaj, Chaturvedi, Anuradha, Kalani, Nevena, Jeremic, Naira, Metreveli, George H, Kunkel, Suresh C, Tyagi	No
Comparison of Arterial Input Function Models for Small-Animal Ultrasound Perfusion Imaging	Accepted to IEEE International Ultrasonics Symposium 2016		2016	Martin, Mezl, Radovan, Jirik, Lenka, Dvorakova, Eva, Drazanova, Radim, Kolar	No
Aortic and Cardiac Structure and Function Using High-Resolution Echocardiography and Optical Coherence Tomography in a Mouse Model of Marfan Syndrome	PLOS ONE	http://dx.plos.org/10.1371/journal.pone.0164778	2016	Ling, Lee, Jason Z., Cui, Michelle, Cua, Mitra, Esfandiarei, Xiaoye, Sheng, Winsey Audrey, Chui, Michael Haoying, Xu, Marinko V., Sarunic, Mirza Faisal, Beg, Cornelius, van Breemen, George G. S., Sandor, Glen F., Tibbits	No
Functional screening of mammalian mechanosensitive genes using Drosophila RNAi library- Smarcd3/Bap60 is a mechanosensitive pro-inflammatory gene	Scientific Reports	http://www.nature.com/articles/srep36461	2016	Sandeep, Kumar, In-hwan, Jang, Chan Woo, Kim, Dong-Won, Kang, Won Jae, Lee, Hanjoong, Jo	No
Intrauterine Growth Restriction Influences Vascular Remodeling and Stiffening in the Weanling Rat More than Sex or Diet	American Journal of Physiology - Heart and Circulatory Physiology	http://ajpheart.physiology.org/lookup/doi/10.1152/ajpheart.00610.2016	2016	R Blair, Dodson, Thomas A, Miller, Kyle N, Powers, Yueqin, Yang, Baifeng, Yu, Kurt H, Albertine, Erin K, Zinkhan	No
Partial Portal Vein Arterialization Attenuates Acute Bile Duct Injury Induced by Hepatic Dearterialization in a Rat Model	BioMed Research International	https://www.hindawi.com/journals/bmri/2016/7427246/	2016	Jun, Jiang, Jishu, Wei, Junli, Wu, Wentao, Gao, Qiang, Li, Kuirong, Jiang, Yi, Miao	No
in a Rat Model				A, Jacobi	No

Title	Journal	Link	Publication date	References	Top Paper
Cardiovascular health effects of oral and pulmonary exposure to multi-walled carbon nanotubes in ApoE-deficient mice	Toxicology	http://linkinghub.elsevier.com/retrieve/pii/S0300483X16302384	2016	Daniel V., Christophersen, Nicklas R., Jacobsen, Maria H.G., Andersen, Shea P., Connell, Kenneth K., Barfod, Morten B., Thomsen, Mark R., Miller, Rodger, Duffin, Jens, Lykkesfeldt, Ulla, Vogel, Håkan, Wallin, Steffen, Loft, Martin, Roursgaard, Peter, Møller	No
Innate Effector-Memory T Cell Activation Regulates Post-Thrombotic Vein Wall Inflammation and Thrombus Resolution	Circulation Research	http://circres.ahajournals.org/lookup/doi/10.1161/CIRCRESAHA.116.309301	2016	Natascha, Luther, Fatemeh, Shahneh, Melanie, Brähler, Franziska, Krebs, Sven, Jäckel, Saravanan, Subramaniam, Christian, Stanger, Tanja, Schönfelder, Bettina, Kleis-Fischer, Christoph, Reinhardt, Hans C, Probst, Philip, Wenzel, Katrin, Schäfer, Christian, Becker	No
Endothelial-like cells differentiated from mesenchymal stem cells attenuate neointimal hyperplasia after vascular injury	Molecular Medicine Reports	http://www.ncbi.nlm.nih.gov/pubmed/27748807	2016	Jianzhong, Xu, DuoJiao, Wu, Yan, Yang, Kaida, Ji, Pingjin, Gao	No
Angiotensin receptor blockade mediated amelioration of mucopolysaccharidosis type I cardiac and craniofacial pathology	Journal of Inherited Metabolic Disease	http://link.springer.com/10.1007/s10545-016-9988-z	2016	Mark J., Osborn, Beau R., Webber, Ronald T., McElmurry, Kyle D., Rudser, Anthony P., DeFeo, Michael, Muradian, Anna, Petryk, Benedikt, Hallgrímsson, Bruce R., Blazar, Jakub, Tolar, Elizabeth A., Braunlin	No
Smooth muscle cell-specific Tgfbβ1 deficiency promotes aortic aneurysm formation by stimulating multiple signaling events	Scientific Reports	http://www.nature.com/articles/srep35444	2016	Pu, Yang, Bradley M., Schmit, Chunhua, Fu, Kenneth, DeSart, S. Paul, Oh, Scott A., Berceli, Zhihua, Jiang	No
Accelerated Blood Clearance Phenomenon Reduces the Passive Targeting of PEGylated Nanoparticles in Peripheral Arterial Disease	ACS Applied Materials and Interfaces		2016	Hyung Jun, Im, Christopher G., England, Liangzhu, Feng, Stephen A., Graves, Reinier, Hernandez, Robert J., Nickles, Zhuang, Liu, Dong Soo, Lee, Steve Y., Cho, Weibo, Cai	No
Defective Connective Tissue Remodeling in Smad3 Mice Leads to Accelerated Aneurysmal Growth through Disturbed Downstream TGF-β Signaling	EBioMedicine	http://linkinghub.elsevier.com/retrieve/pii/S2352396416304133	2016	I., van der Pluijm, N., van Vliet, J.H., von der Thusen, J.L., Robertus, Y., Ridwan, P.M., van Heijningen, B.S., van Thiel, M., Vermeij, S.E., Hoeks, R.M.G.B., Buijs-Offerman, H.J.M., Verhagen, R., Kanaar, A.M., Bertoli-Avella, J., Essers	No
Visualization of haemophilic arthropathy in F8 -/- rats by ultrasonography and micro-computed tomography	Haemophilia	http://doi.wiley.com/10.1111/hae.13080	2016	K. R., Christensen, K., Roepstorff, M., Petersen, B., Wiinberg, A. K., Hansen, M., Kjelgaard-Hansen, L. N., Nielsen	No
Hemodynamic Influence on Smooth Muscle Cell Kinetics and Phenotype During Early Vein Graft Adaptation	Annals of Biomedical Engineering	http://link.springer.com/10.1007/s10439-016-1725-0	2016	Benjamin, Klein, Anthony, Destephens, Leanne, Dumeny, Qiongyao, Hu, Yong, He, Kerri, O'Malley, Zhihua, Jiang, Roger, Tran-Son-Tay, Scott, Berceli	No
Matrix metalloproteinase inhibitor, doxycycline and progression of calcific aortic valve disease in hyperlipidemic mice	Scientific Reports	http://www.nature.com/articles/srep32659	2016	Jae-Joon, Jung, Mahmoud, Razavian, Hye-Yeong, Kim, Yungpeng, Ye, Reza, Golestani, Jakub, Toczek, Jiasheng, Zhang, Mehran M., Sadeghi	No
Developmental changes in hemodynamics of uterine artery, utero- and umbilicoplacental, and vitelline circulations in mouse throughout gestation	AJP: Heart and Circulatory Physiology	http://ajpheart.physiology.org/cgi/doi/10.1152/ajpheart.00031.2006	2006	Junwu, Mu	No

Title	Journal	Link	Publication date	References	Top Paper
Smooth muscle FGF/TGFβ cross talk regulates atherosclerosis progression	EMBO Mol Med	http://www.ncbi.nlm.nih.gov/pubmed/27189169	2016	P Y, Chen, L, Qin, G, Li, G, Tellides, M, Simons	No
Asymmetric pulsation of rat carotid artery bifurcation in three-dimension observed by ultrasound imaging	The International Journal of Cardiovascular Imaging	http://link.springer.com/10.1007/s10554-016-0934-9	2016	Changzhu, Jin, Kweon-Ho, Nam, Dong-Guk, Paeng	No
Re-assessing the enhanced permeability and retention effect in peripheral arterial disease using radiolabeled long circulating nanoparticles	Biomaterials	http://www.sciencedirect.com/science/article/pii/S0142961216301910	2016	Christopher G, England, Hyung-Jun, Im, Liangzhu, Feng, Feng, Chen, Stephen A, Graves, Reinier, Hernandez, Hakan, Orbay, Cheng, Xu, Steve Y, Cho, Robert J, Nickles, Zhuang, Liu, Dong Soo, Lee, Weibo, Cai	No
Development and optimization of near-IR contrast agents for immune cell tracking	Biomedical Optics Express	https://www.osapublishing.org/boe/abstract.cfm?uri=boe-4-11-2609	2013	Pratixa P, Joshi, Soon Joon, Yoon, Yun-sheng, Chen, Stanislav, Emelianov, Konstantin V, Sokolov	No
Photoacoustic Imaging for the Detection of Hypoxia in the Rat Femoral Artery and Skeletal Muscle Microcirculation	SHOCK	http://www.ncbi.nlm.nih.gov/pubmed/27172152	2016	Lane M., Smith, Jasmina, Varagic, Liliya M., Yamaleyeva	No
Assessment of Venous Thrombosis in Animal Models	Arteriosclerosis, Thrombosis, and Vascular Biology	http://atvb.ahajournals.org/lookup/doi/10.1161/ATVBAHA.115.306255	2016	Steven P., Grover, Colin E., Evans, Ashish S., Patel, Bijan, Modarai, Prakash, Saha, Alberto, Smith	No
Ascending Aortic Aneurysm in Angiotensin II-Infused Mice: Formation, Progression, and the Role of Focal Dissections.	Arteriosclerosis, thrombosis, and vascular biology	http://atvb.ahajournals.org/lookup/doi/10.1161/ATVBAHA.116.307211	2016	Bram, Trachet, Alessandra, Piersigilli, Rodrigo a., Fraga-Silva, Lydia, Aslanidou, Jessica, Sordet-Dessimoz, Alberto, Astolfo, Marco F M, Stampanoni, Patrick, Segers, Nikolaos, Stergiopoulos	No
Axl modulates immune activation of smooth muscle cells in vein graft remodeling.	American journal of physiology. Heart and circulatory physiology	http://ajpheart.physiology.org/lookup/doi/10.1152/ajpheart.00495.2015%5Cnhttp://...	2015	Sri N, Batchu, Jixiang, Xia, Kyung Ae, Ko, Marvin M, Doyley, Jun-ichi, Abe, Craig N, Morrell, Vyacheslav a, Korshunov	No
Prostaglandin E synthase is upregulated by Gas6 during cancer-induced venous thrombosis.	Blood	http://www.ncbi.nlm.nih.gov/pubmed/26585956	2015	Meghedi N, Aghourian, Catherine a, Lemarié, Francois-René, Bertin, Mark D, Blostein	No
Age-related vascular gene expression profiling in mice	Mechanisms of Ageing and Development	http://dx.doi.org/10.1016/j.mad.2014.01.001	2014	Christos, Rammos, Ulrike B., Hendgen-Cotta, Rene, Deenen, Julia, Pohl, Pia, Stock, Christian, Hinzmann, Malte, Kelm, Tienush, Rassaf	No
Monitoring and staging abdominal aortic aneurysm disease with pulse wave imaging.	Ultrasound in medicine & biology	http://www.ncbi.nlm.nih.gov/pubmed/25130446	2014	Sacha D, Nandlall, Monica P, Goldklang, Aubrey, Kalashian, Nida a, Dangra, Jeanine M, D'Armiento, Elisa E, Konofagou	No
High and low frequency subharmonic imaging of angiogenesis in a murine breast cancer model	Ultrasonics	http://dx.doi.org/10.1016/j.ultras.2015.04.012	2013	Manasi, Dahibawkar, Mark A, Forsberg, Aditi, Gupta, Samantha, Jaffe, Kelly, Dulin, John R, Eisenbrey, Valgerdur G, Halldorsdottir, Anya I, Forsberg, Jaydev K, Dave, Andrew, Marshall, Priscilla, Machado, Traci B, Fox, Ji-bin, Liu, Flemming, Forsberg	No
Morphological and Biomechanical Differences in the Elastase and AngII apoE -/- Rodent Models of Abdominal Aortic Aneurysms	BioMed Research International	http://www.hindawi.com/journals/bmri/2015/413189/	2015	Evan H., Phillips, Alexa a., Yrneo, Hilary D., Schroeder, Katherine E., Wilson, Ji-Xin, Cheng, Craig J., Goergen	No
Pitavastatin Reduces Inflammation in Atherosclerotic Plaques in Apolipoprotein E-Deficient Mice with Late Stage Renal Disease.	PLoS one		2015	Manabu, Shibasaki, Jian-Guo, Wang, Jose-Luiz, Figueiredo, Sophie E P, New, Thibaut, Quillard, Claudia, Goettsch, Jun-ichiro, Koga, Hiroyuki, Sonoki, Jiro, Matsumoto, Masanori, Aikawa, Elena, Aikawa	No

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Rip2 modifies VEGF-induced signalling and vascular permeability in myocardial ischaemia	Cardiovascular Research	http://cardiovascres.oxfordjournals.org/lookup/doi/10.1093/cvr/cvv186	2015	Linda, Andersson, Margareta, Scharin Tång, Annika, Lundqvist, Malin, Lindbom, Ismena, Mardani, Per, Fogelstrand, Puja, Shahrrouki, Björn, Redfors, Elmir, Omerovic, Max, Levin, Jan, Borén, Malin C., Levin	No
Influence of physical activity and gender on arterial function in type 2 diabetes, normal and impaired glucose tolerance	Diabetes and Vascular Disease Research	http://dvr.sagepub.com/cgi/doi/10.1177/1479164115588548	2015	M., Ring, M. J., Eriksson, T., Fritz, G., Nyberg, C. G., Ostenson, A., Krook, J. R., Zierath, K., Caidahl	No
Multimodality and Molecular Imaging of Matrix Metalloproteinase Activation in Calcific Aortic Valve Disease	Journal of Nuclear Medicine	http://jnm.snmjournals.org/cgi/doi/10.2967/jnumed.114.152355	2015	J.-J., Jung, M., Razavian, a. a., Challa, L., Nie, R., Golestani, J., Zhang, Y., Ye, K. S., Russell, S. P., Robinson, D. D., Heistad, M. M., Sadeghi	No
Resveratrol Decreases TXNIP mRNA and Protein Nuclear Expressions With an Arterial Function Improvement in Old Mice	The Journals of Gerontology Series A: Biological Sciences and Medical Sciences	http://biomedgerontology.oxfordjournals.org/cgi/doi/10.1093/gerona/glv071	2016	Tatiana, Bedarida, Stephanie, Baron, Françoise, Vibert, Audrey, Ayer, Daniel, Henrion, Elizabeth, Thioulouse, Carmen, Marchiol, Jean-Louis, Beaudeau, Charles-Henry, Cottart, Valerie, Nivet-Antoine	No
The innate immune system contributes to tissue-engineered vascular graft performance	The FASEB Journal	http://www.fasebj.org/cgi/doi/10.1096/fj.14-268334	2015	N., Hibino, D., Mejias, N., Pietris, E., Dean, T., Yi, C., Best, T., Shinoka, C., Breuer	No
Calcific aortic valve stenosis: methods, models, and mechanisms.	Circulation research	http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=3150727&tool=pmcentre...	2011	Jordan D, Miller, Robert M, Weiss, Donald D, Heistad	No
In vivo bioimaging as a novel strategy to detect doxorubicin-induced damage to gonadal blood vessels.	PloS one	http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=3170286&tool=pmcentre...	2011	Hadas, Bar-Joseph, Irit, Ben-Aharon, Moran, Tzabari, Galia, Tsarfaty, Salomon M, Stemmer, Ruth, Shalgi	No
Transcriptional profiling and network analysis of the murine angiotensin II-induced abdominal aortic aneurysm.	Physiological genomics	http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=3180735&tool=pmcentre...	2011	Joshua M, Spin, Mark, Hsu, Junya, Azuma, Maureen M, Tedesco, Alicia, Deng, Justin S, Dyer, Lars, Maegdefessel, Ronald L, Dalman, Philip S, Tsao	No
Noninvasive Molecular Ultrasound Monitoring of Vessel Healing After Intravascular Surgical Procedures in a Preclinical Setup.	Arteriosclerosis, thrombosis, and vascular biology	http://www.ncbi.nlm.nih.gov/pubmed/25838431	2015	Adelina, Curaj, Zhuojun, Wu, Stanley, Fokong, Elisa a, Liehn, Christian, Weber, Alexandrina, Burlacu, Twan, Lammers, Marc, van Zandvoort, Fabian, Kiessling	No
Molecular imaging of inflammation and platelet adhesion in advanced atherosclerosis effects of antioxidant therapy with NADPH oxidase inhibition.	Circulation. Cardiovascular imaging	http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=3575135&tool=pmcentre...	2013	Yani, Liu, Brian P, Davidson, Qi, Yue, Todd, Belcik, Aris, Xie, Yoichi, Inaba, Owen J T, McCarty, Garth W, Tormoen, Yan, Zhao, Zaverio M, Ruggeri, Beat a, Kaufmann, Jonathan R, Lindner	No
Dual-targeted Contrast Agent for US Assessment of Tumor Angiogenesis in Vivo	Radiology	http://pubs.rsna.org/doi/10.1148/radiol.2483072231	2008	Jürgen K, Willmann, Amelie M, Lutz, Ramasamy, Paulmurugan, Manishkumar R., Patel, Pauline, Chu, Jarrett, Rosenberg, Sanjiv S, Gambhir	No
Targeted Microbubbles for Imaging Tumor Angiogenesis: assessment of whole body biodistribution with dynamic micro-PET in mice.	Radiology	http://www.ncbi.nlm.nih.gov/pubmed/18695212	2008	Zhen, Willmann JK, Cheng, Corrine, Davis, Amelie M, Lutz, Gambhir SS., Nielsen, Carsten H	No
Novel Single-Chain Antibody-Targeted Microbubbles for Molecular Ultrasound Imaging of Thrombosis: Validation of a Unique Noninvasive Method for Rapid and Sensitive Detection of Thrombi and Monitoring of Success or Failure of Thrombolysis in Mice	Circulation	http://www.ncbi.nlm.nih.gov/pubmed/22647975	2012	Xiaowei, Wang, Christoph E, Hagemeyer, Jan David, Hohmann, Ephraem, Leitner, Paul C, Armstrong, Fu, Jia, Manfred, Olschewski, Andrew, Needles, Karlheinz, Peter, Ingo, Ahrens	No

Title	Journal	Link	Publication date	References	Top Paper
Murine ultrasound imaging for circumferential strain analyses in the angiotensin II abdominal aortic aneurysm model	Journal of Vascular Surgery	http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=3581859&tool=pmcentr...	2012	John T, Favreau, Binh T, Nguyen, Ian, Gao, Peng, Yu, Ming, Tao, Jacob, Schneiderman, Glenn R, Gaudette, C Keith, Ozaki	No
Longitudinal common carotid artery wall motion is associated with plaque burden in man and mouse	Atherosclerosis	http://www.ncbi.nlm.nih.gov/pubmed/21439568	2011	Sara, Svedlund, Li-ming, Gan	No
Imaging guided trials of the angiogenesis inhibitor sunitinib in mouse models predict efficacy in pancreatic neuroendocrine but not ductal carcinoma.	Proceedings of the National Academy of Sciences of the United States of America	http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=3241750&tool=pmcentr...	2011	Peter, Olson, Gerald C, Chu, Samuel R, Perry, Olivier, Nolan-Stevaax, Douglas, Hanahan	No
Volumetric and Angiogenic Evaluation of Antitumor Effects with Acoustic Liposome and High-Frequency Ultrasound	Cancer Research	http://www.ncbi.nlm.nih.gov/pubmed/21983036	2011	Tetsuya, Kodama, Noriko, Tomita, Yoko, Yagishita, Sachiko, Horie, Kenichi, Funamoto, Toshiyuki, Hayase, Maya, Sakamoto, Shiro, Mori	No
Mitochondrial activation by inhibition of PDKII suppresses HIF1a signaling and angiogenesis in cancer	Oncogene	http://www.ncbi.nlm.nih.gov/pubmed/22614004	2013	G, Sutendra, P, Dromparis, A, Kinnaird, T H, Stenson, A, Haromy, J M R, Parker, M S, McMurtry, E D, Michelakis	No
Molecular Imaging of Vasa Vasorum Neovascularization via DEspR-targeted Contrast-enhanced Ultrasound Micro-imaging in Transgenic Atherosclerosis Rat Model	Molecular Imaging and Biology	http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=3119765&tool=pmcentr...	2011	Julius L, Decano, Anne Marie, Moran, Nelson, Ruiz-Opazo, Victoria L M, Herrera	No
Bioengineered human vascular networks transplanted into secondary mice reconnect with the host vasculature and re-establish perfusion	Blood	http://www.bloodjournal.org/cgi/doi/10.1182/blood-2011-08-375188	2011	K.-T., Kang, Patrick, Allen, Joyce, Bischoff	No
Non- invasive in vivo analysis of a murine aortic graft using high resolution ultrasound microimaging.	European journal of radiology	http://www.ncbi.nlm.nih.gov/pubmed/21334152	2012	Zuzanna, Rowinska, Simone, Zander, Alma, Zerneck, Michael, Jacobs, Stephan, Langer, Christian, Weber, Marc W, Merx, Thomas a, Koepfel	No
Exercise performance and peripheral vascular insufficiency improve with AMPK activation in high-fat diet-fed mice	AJP: Heart and Circulatory Physiology	http://www.ncbi.nlm.nih.gov/pubmed/24561866	2014	Kristen a, Baltgalvis, Kathy, White, W., Li, Mark D, Claypool, Wayne, Lang, Raniel, Alcantara, B. K., Singh, Annabelle M, Frier, John, McLaughlin, Derek, Hansen, Kelly, McCaughey, Henry, Nguyen, Ira J, Smith, Guillermo, Godinez, Simon J, Shaw, Dane, Goff, Rajinder, Singh, Vadim, Markovtsov, T.-Q., Sun, Yonchu, Jenkins, Gerald, Uy, Yingwu, Li, Alison, Pan, Tarikere, Gururaja, David, Lau, Gary, Park, Yasumichi, Hitoshi, Donald G, Payan, Todd M, Kinsella	No
Glucose-stimulated insulin secretion causes an insulin-dependent nitric oxide-mediated vasodilation in the blood supply of the rat sciatic nerve	AJP: Regulatory, Integrative and Comparative Physiology	http://www.ncbi.nlm.nih.gov/pubmed/23616106	2013	T Dylan, Olver, Louis, Mattar, K. N., Grise, Jasna, Twynstra, Earl G, Noble, James C, Laceyfield, J Kevin, Shoemaker	No
Y1R control of sciatic nerve blood flow in the Wistar Kyoto rat.	Microvascular research	http://www.ncbi.nlm.nih.gov/pubmed/22713926	2012	Jasna, Twynstra, Philip J, Medeiros, James C, Laceyfield, Dwayne N, Jackson, J Kevin, Shoemaker	No
High-Resolution Ultrasound Perfusion Imaging of Therapeutic Angiogenesis	JACC: Cardiovascular Imaging	http://www.ncbi.nlm.nih.gov/pubmed/19356410	2008	Tuomas T, Rissanen, Petra, Korpialo, Henna, Karvinen, Timo, Liimatainen, Svetlana, Laidinen, Olli H, Gröhn, Seppo, Ylä-Herttuala	No
Photoacoustic Imaging of Vascular Hemodynamics: Validation with Blood Oxygenation Level-Dependent MR Imaging	Radiology	http://pubs.rsna.org/doi/abs/10.1148/radiol.14140654	2015	Laurie J, Rich, Mukund, Seshadri	No

Title	Journal	Link	Publication date	References	Top Paper
Endothelial expression of hypoxia-inducible factor 1 protects the murine heart and aorta from pressure overload by suppression of TGF-β signaling.	Proceedings of the National Academy of Sciences of the United States of America	http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=3325701&tool=pmcentr...	2012	Hong, Wei, Djahida, Bedja, Norimichi, Koitabashi, Dongmei, Xing, Jasper, Chen, Karen, Fox-Talbot, Rosanne, Rouf, Shaoping, Chen, Charles, Steenberg, John W, Harmon, Harry C, Dietz, Kathleen L, Gabrielson, David a, Kass, Gregg L, Semenza	No
Influences of aortic motion and curvature on vessel expansion in murine experimental aneurysms.	Arteriosclerosis, thrombosis, and vascular biology	http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=3024449&tool=pmcentr...	2011	Craig J, Goergen, Junya, Azuma, Kyla N, Barr, Lars, Magdefessel, Dara Y, Kallop, Alvin, Gogineni, Amarjeet, Grewall, Robby M, Weimer, Andrew J, Connolly, Ronald L, Dalman, Charles a, Taylor, Philip S, Tsao, Joan M, Greve	No
Torcetrapib produces endothelial dysfunction independent of cholesterol ester transfer protein inhibition.	Journal of cardiovascular pharmacology	http://www.ncbi.nlm.nih.gov/pubmed/20051879	2010	Margery a, Connelly, Tom J, Parry, Edward C, Giardino, Zhihong, Huang, Wai-Man, Cheung, Cailin, Chen, Frank, Cools, Henk, Van der Linde, David J, Gallacher, Gee-Hong, Kuo, Troy C, Sarich, Keith T, Demarest, Bruce P, Damiano	No
Tissue-intrinsic dysfunction of circadian clock confers transplant arteriosclerosis	Proceedings of the National Academy of Sciences	http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=3193243&tool=pmcentr...	2011	Bo, Cheng, Ciprian B, Anea, Lin, Yao, Feng, Chen, Vijay, Patel, Ana, Merloiu, Paramita, Pati, R William, Caldwell, David J, Fulton, R Daniel, Rudic	No
Inhibition of Notch1 signaling reduces abdominal aortic aneurysm in mice by attenuating macrophage-mediated inflammation.	Arteriosclerosis, thrombosis, and vascular biology	http://www.ncbi.nlm.nih.gov/pubmed/23087364	2012	Chetan P, Hans, Sara N, Koenig, Nianyuan, Huang, Jeeyun, Cheng, Susana, Beceiro, Anuradha, Guggilam, Helena, Kuivaniemi, Santiago, Partida-Sánchez, Vidu, Garg	No
Partial carotid ligation is a model of acutely induced disturbed flow, leading to rapid endothelial dysfunction and atherosclerosis.	American journal of physiology. Heart and circulatory physiology	http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=2770764&tool=pmcentr...	2009	Douglas, Nam, Chih-Wen, Ni, Amir, Rezvan, Jin, Suo, Klaudia, Budzyn, Alexander, Llanos, David, Harrison, Don, Giddens, Hanjoong, Jo	No
Gene Inactivation of Proprotein Convertase Subtilisin/Kexin Type 9 Reduces Atherosclerosis in Mice	Circulation	http://www.ncbi.nlm.nih.gov/pubmed/22261195	2012	Maxime, Denis, Jadwiga, Marcinkiewicz, Ahmed, Zaid, Dany, Gauthier, Steve, Poirier, Claude, Lazure, Nabil G, Seidah, Annik, Prat	No
Micro-Ultrasonographic Imaging of Atherosclerotic Progression	Texas Heart Institute Journal		2011	Apolipoprotein-e Knockout, Mice	No
Micro-ultrasound imaging assessment of carotid plaque characteristics in apolipoprotein-E knockout mice.	Atherosclerosis	http://www.ncbi.nlm.nih.gov/pubmed/17870080	2008	Mei, Ni, Mei, Zhang, Shi Fang, Ding, Wen Qiang, Chen, Yun, Zhang	No
A Critical Function of Th17 Proinflammatory Cells in the Development of Atherosclerotic Plaque in Mice	The Journal of Immunology	http://www.ncbi.nlm.nih.gov/pubmed/20952673	2010	Q., Gao, Yang, Jiang, T., Ma, Faliang, Zhu, Fei, Gao, P., Zhang, Chun, Guo, Q., Wang, Xiaoyan, Wang, Chunhong, Ma, Y., Zhang, Wanjun, Chen, Lining, Zhang	No
Aortic regurgitation dramatically alters the distribution of atherosclerotic lesions and enhances atherogenesis in mice.	Arteriosclerosis, thrombosis, and vascular biology	http://www.ncbi.nlm.nih.gov/pubmed/20299687	2010	Yu-Qing, Zhou, Su-Ning, Zhu, F Stuart, Foster, Myron I, Cybulsky, R Mark, Henkelman	No
Non-invasive real-time imaging of atherosclerosis in mice using ultrasound biomicroscopy.	Atherosclerosis	http://www.ncbi.nlm.nih.gov/pubmed/16677654	2007	Li-ming, Gan, Julia, Grönros, Ulrika, Hägg, Johannes, Wikström, Catherine, Theodoropoulos, Peter, Friberg, Regina, Fritsche-Danielson	No

Title	Journal	Link	Publication date	References	Top Paper
Molecular Imaging of Vascular Endothelial Growth Factor Receptor 2 Expression using targeted contrast enhanced High frequency ultrasonography	American Institute of Ultrasound in Medicine		2007	Andrej, Lyschchik, Arthur C, Fleischer, Jessica, Huamani, Dennis E, Hallahan, Marcela, Brissova, John C, Gore	No
Quantitation of hemodynamic function during developmental vascular regression in the mouse eye.	Investigative ophthalmology & visual science	http://www.ncbi.nlm.nih.gov/pubmed/15980205	2005	Allison S, Brown, Lisa, Leamen, Vivienne, Cucevic, F Stuart, Foster	No
Aortic valve sclerosis in mice deficient in endothelial nitric oxide synthase	AJP: Heart and Circulatory Physiology	http://ajpheart.physiology.org/cgi/doi/10.1152/ajpheart.00392.2013	2014	R. N., El Accaoui, Sarah T, Gould, Georges P, Hajji, Yi, Chu, Melissa K, Davis, Diane C, Kraft, Donald D, Lund, Robert M, Brooks, H, Doshi, Kathy A, Zimmerman, William, Kutschke, Kristi S, Anseth, Donald D, Heistad, Robert M, Weiss	No
In vivo measurement of flow-mediated vasodilation in living rats using high-resolution ultrasound.	American journal of physiology. Heart and circulatory physiology	http://www.ncbi.nlm.nih.gov/pubmed/18055528	2008	Christian, Heiss, Richard E, Sievers, Nicolas, Amabile, Tony Y, Momma, Qiumei, Chen, Shobha, Natarajan, Yerem, Yeghiazarians, Matthew L, Springer	No
Detecting vascular changes in tumour xenografts using micro-ultrasound and micro-ct following treatment with VEGFR-2 blocking antibodies.	Ultrasound in medicine & biology	http://www.ncbi.nlm.nih.gov/pubmed/17467156	2007	Alison M Y, Cheung, Allison S, Brown, Vivienne, Cucevic, Marcia, Roy, Andrew, Needles, Victor, Yang, Daniel J, Hicklin, Robert S, Kerbel, F Stuart, Foster	No
Low-dose metronomic oral dosing of a prodrug of gemcitabine (LY2334737) causes antitumor effects in the absence of inhibition of systemic vasculogenesis.	Molecular cancer therapeutics	http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=3409688&tool=pmcentr...	2012	Giulio, Francia, Yuval, Shaked, Kae, Hashimoto, John, Sun, Melissa, Yin, Carolyn, Cesta, Ping, Xu, Shan, Man, Christina, Hackl, Julie, Stewart, Mark, Uhlik, Anne H, Dantzig, F Stuart, Foster, Robert S, Kerbel	No
The Vascular Disrupting Agent STA-9584 Exhibits Potent Antitumor Activity by Selectively Targeting Microvasculature at Both the Center and Periphery of Tumors	Journal of Pharmacology and Experimental Therapeutics	http://www.ncbi.nlm.nih.gov/pubmed/22837008	2012	Kevin P, Foley, Dan, Zhou, Chris, Borella, Yaming, Wu, M., Zhang, Jun, Jiang, Hao, Li, Jim, Sang, Tim, Korbut, Josephine, Ye, Xuemei, Zhang, James, Barsoum, Andrew J, Sonderfan	No
Vitamin E analogues inhibit angiogenesis by selective induction of apoptosis in proliferating endothelial cells: the role of oxidative stress.	Cancer research	http://www.ncbi.nlm.nih.gov/pubmed/18089821	2007	Lan-Feng, Dong, Emma, Swettenham, Johanna, Eliasson, Xiu-Fang, Wang, Mikhal, Gold, Yasmine, Medunic, Marina, Stantic, Pauline, Low, Lubomir, Prochazka, Paul K, Witting, Jaroslav, Turanek, Emmanuel T, Akporiaye, Stephen J, Ralph, Jiri, Neuzil	No
HIF-1-dependent stromal adaptation to ischemia mediates in vivo tumor radiation resistance.	Molecular cancer research : MCR	http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=3077053&tool=pmcentr...	2011	David L, Schwartz, James, Bankson, Luc, Bidaut, Yi, He, Ryan, Williams, Robert, Lemos, Arun Kumar, Thitai, Junghwan, Oh, Andrei, Volgin, Suren, Soghomonyan, Hsin-Hsien, Yeh, Ryuichi, Nishii, Uday, Mukhopadhyay, Mian, Alauddin, Ioseb, Mushkudiani, Norihito, Kuno, Sunil, Krishnan, William, Bornman, Stephen Y, Lai, Garth, Powis, John, Hazle, Juri, Gelovani	No
Enhanced Sonographic Imaging to Diagnose Lymph Node Metastasis: Importance of Blood Vessel Volume and Density	Cancer Research	http://www.ncbi.nlm.nih.gov/pubmed/23333937	2013	Li, Li, Shiro, Mori, M., Kodama, Maya, Sakamoto, Shoki, Takahashi, Tetsuya, Kodama	No

Title	Journal	Link	Publication date	References	Top Paper
Rhodamine-Loaded Intercellular Adhesion Molecule-1-targeted Microbubbles for Dual-Modality Imaging Under Controlled Shear Stresses	Circulation: Cardiovascular Imaging	http://www.ncbi.nlm.nih.gov/pubmed/24036383	2013	Zhuojun, Wu, Adelina, Curaj, Stanley, Fokong, Elisa a, Liehn, Christian, Weber, Twan, Lammers, Fabian, Kiessling, Marc, Zandvoort van	No
Antiangiogenic Cancer Therapy : Monitoring with Molecular US and a Clinically Translatable Contrast Purpose : Methods : Results :	Radiology	http://www.ncbi.nlm.nih.gov/pubmed/20515975	2010	Agent, Br, Marybeth A, Pysz, Kira, Foygel, Jarrett, Rosenberg	No
Intravascular photoacoustic imaging of lipid in atherosclerotic plaques in the presence of luminal blood	Optics Letters		2012	Bo, Wang, Andrei, Karpouk, Doug, Yeager, James, Amirian, Silvio, Litovsky, Richard, Smalling, Stanislav, Emelianov	No
Ex vivo Characterization of Atherosclerosis using Intravascular Photoacoustic Imaging.	Optics express		2007	Shriram, Sethuraman, James H, Amirian, Silvio H, Litovsky, Richard W, Smalling, Stanislav Y, Emelianov	No
Enhanced angiogenic and cardiomyocyte differentiation capacity of epigenetically reprogrammed mouse and human endothelial progenitor cells augments their efficacy for ischemic myocardial repair.	Circulation research	http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=3406600&tool=pmcentr...	2012	Melissa a, Thal, Prasanna, Krishnamurthy, Alexander R, Mackie, Eneda, Hoxha, Erin, Lambers, Suresh, Verma, Veronica, Ramirez, Gangjian, Qin, Douglas W, Losordo, Raj, Kishore	No
Injection of Vessel-Derived Stem Cells Prevents Dilated Cardiomyopathy and Promotes Angiogenesis and Endogenous Cardiac Stem Cell Proliferation in mdx/utrn-/- but Not Aged mdx Mouse Models for Duchenne Muscular Dystrophy	Stem Cells Translational Medicine	http://stemcellstm.alphamedpress.org/cgi/doi/10.5966/sctm.2012-0107	2013	J. L., Chun, R., O'Brien, M. H., Song, B. F., Wondrasch, S. E., Berry	No