

Title	Journal	Link	Publication date	References	Top Paper
Differential aortic aneurysm formation provoked by chemogenetic oxidative stress	Journal of Clinical Investigation		2025	Apabrita Ayan, Das, Markus, Waldeck-Weiermair, Shambhu, Yadav, Fotios, Spyropoulos, Arvind, Pandey, Tanoy, Dutta, Taylor A., Covington, Thomas, Michel	Yes
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	Yes
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, Yuancheng, 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=pmcentre...	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

Title	Journal	Link	Publication date	References	Top Paper
Smooth Muscle Cell Specific Activity of SGK-1 Alters Aortic Stiffness and Abdominal Aortic Aneurysm Growth	Journal of Vascular Diseases		2026	Matthew, Anderson, Leilei, Zhang, Mario, Figueroa, Victoria, Mattia, Alexander, Rovner, Vinitha, Uppalapati, Ying, Xiong, Rupak, Mukherjee, Jeffrey A., Jones, Jean Marie, Ruddy	No
miR-210 overexpression increases pressure overload-induced cardiac fibrosis	Non-coding RNA Research		2025	G., Zaccagnini, D., Baci, S., Tastsoglou, I., Cozza, A., Madè, C., Voellenkle, M., Nicoletti, C., Ruatti, M., Longo, L., Perani, C., Gaetano, A., Esposito, F., Martelli	No
Amlodipine improves aortic dysfunction in atherosclerotic mice	Biomedicine and Pharmacotherapy		2026	Sophia Marie, Rasch, Benedikt, Fels, Alexandra, Schmalohr, Luis Daniel Hernandez, Torres, Eva, Peschke, Olga Maria, Will, Jan Bernd, Hoevener, Leonie, Achner, Tobias, Klersy, Frauke, Spiecker, Marcel, Sauer, Carl, Vahldieck, Tobias, Reinberger, Urte, Matschl, Susanne, Hille, Oliver J., Müller, Zouhair, Aherrahrou, Kristina, Kusche, Walter, Raasch	No
Thrombospondin-4 is upregulated in abdominal aortic aneurysm: A vasoprotective response with potential therapeutic relevance	British Journal of Pharmacology		2026	Laia, Blanco-Casoliva, Lidia, Puertas-Umbert, Judith, Alonso, Rafael, Almendra-Pegueros, Saray, Varona, Mercedes, Camacho, Gemma, Arderiu, Lluís, Asmarats, Marta, Alegret, Jose, Martinez-Gonzalez, Cristina, Rodriguez	No
Comparison of 2D and 3D carotid plaque analysis and longitudinal in vivo ultrasound registration using 3D histology	Journal of Medical Imaging	https://www.spiedigitallibrary.org/journals/journal-of-medical-imaging/volume-1...	2026	Yurim, Lee, Maxwell J., Kiernan, Carol C., Mitchell, Shahriar, Salamat, Stephanie M., Wilbrand, Robert J., Dempsey, Tomy, Varghese	No
Lack of endothelial estrogen receptor alpha signaling exacerbates abdominal aortic aneurysm in male mice			2026	Yijin, Huang, Guanghong, Jia, Luis A, Martinez-Lemus, Camila, Manrique-Acevedo	No
Preserved Function of Endothelial Colony-Forming Cells in Female Rats with Intrauterine Growth Restriction: Protection Against Arterial Hypertension and Arterial Stiffness?	Cells		2026	Thea, Chevalley, Floriane, Bertholet, Marion, Dübi, Maria Serena, Merli, Mélanie, Charmoy, Sybil, Bron, Manon, Allouche, Alexandre, Sarre, Nicole, Sekarski, Stéphanie, Simoncini, Patrick, Taffé, Umberto, Simeoni, Catherine, Yzydorczyk	No
Treatment of clonal hematopoiesis associated atherosclerosis via vaccine-based clearance of the mutant cells	Journal of Advanced Research		2026	Shuang, Liang, Wenxin, Tao, Di, Qu, Panpan, Ji, Zhenzhen, Hao, Mengying, Wei, Guodong, Yang, Xueming, Zhou, Chen, Wang, Lijun, Yuan	No
Preparation and in vivo effectiveness evaluation of heparin-loaded PLGA@PCL core-shell fiber small-diameter vascular grafts	PloS one		2026	Yonghao, Xiao, Han, Wang, Yuhao, Jiao, Yuehao, Xing, Lin, Ye, Ai Ying, Zhang, Xue, Geng, Fanshan, Qiu, Zengguo, Feng, Hongbo, Chen, Yongquan, Gu	No

Title	Journal	Link	Publication date	References	Top Paper
SREBP1-mediated lipogenesis promotes dedifferentiation and senescence of vascular smooth muscle cells through epigenetic remodeling	Nature Communications		2025	Bowen, Li, Kaixiang, Zhou, Anan, Yin, Yonghong, Liu, Xichen, Wang, Yujia, Cui, Fangfang, Liu, Qiurong, Liu, Hongjing, Zheng, Zhiqiang, Mu, Kun, Chen, Yuanming, Wu, Yaoming, Chang, Junxiang, Bao	No
Galectin7 attenuates abdominal aortic aneurysm progression by resisting disturbed flow induced endothelial-to-mesenchymal transition	Theranostics		2026	Yanbing, Wang, Yilin, Zhou, Yeshe, Zhang, Danni, Tu, Guojun, Chen, Yuan, Han, Xiaomin, Wei, Yanmei, Chen, Senlin, Huang, Yulin, Liao, Wangjun, Liao, Jiancheng, Xiu, Yuegang, Wang, Jianping, Bin, Xinzhong, Li	No
Colchicine Alleviates Non-Atherosclerotic Vascular Aging by Targeting Endothelial Dysfunction and Inflammatory Status	Journal of Inflammation Research	https://www.dovepress.com/colchicine-alleviates-non-atherosclerotic-vascular-ag...	2026	Soroush, Mohammadi Jouabadi, Annika, Jüttner, Kelvan, Golshiri, Ehsan, Ataei Ataabadi, Martine, de Boer, Rene, De Vries, Richard, Van Veghel, Yoëlle, Goos, Youri, Boon, Usha, Musterd-Bhaggoe, Dirk, Duncker, Antoinette, MaassenVanDenBrink, AH Jan, Danser, Willem, Bax, Jan, Cornel, Anton, Roks	No
Effect of Antihypertensive Losartan on Ca²⁺ Mobilization in the Aorta of Middle-Aged Spontaneously Hypertensive Female Rats		https://creativecommons.org/licenses/by/4.0/	2025	Swasti, Rastogi, Jessica, Liaw, Yingnan, Zhai, Tatiana, Karpova, Linxia, Gu, Kenia, Nunes	No
Pgc1 activation restores endothelial metabolic homeostasis to alleviate vascular aging and atherosclerosis	Cardiovascular Diabetology		2025	Jinhong, Lu, Jianji, Wang, Yu, Liu, Cuntai, Zhang, Guojun, Zhang, Yipeng, Ge, Lei, Liu	No
Elastase-2 deletion prevents vascular remodeling and abdominal aortic aneurysm development in a mice model induced by angiotensin II	Vascular Pharmacology		2025	Fabiola, Mestriner, Vinicius Flora, Dugaich, Pedro Bruch, Dantas, Henrique Z., Kovacs, Marcela M., Blascke de Mello, Carina A., Pedersoli, Rafael Menezes, da Costa, Maria Cecilia, Jordani, Leandra N.Z., Ramalho, Michele M., de Castro, Júlio A., Silva-Neto, Rita C.A., Tostes Passaglia, Mauricio Serra, Ribeiro, Christiane, Becari	No
Extracellular RNA as a molecular driver and therapeutic target in abdominal aortic aneurysms	Scientific Reports		2025	Nahla, Ibrahim, Hubert, Hayden, Gabriel, Kurzreiter, Johannes, Klopf, Sonja, Bleichert, Tyler, Artner, Alexander, Stiglbauer-Tscholakoff, Wolf, Eilenberg, Christoph, Neumayer, Christine, Brostjan	No
Loss of ADAM17 in smooth muscle cells enhances their transformation to macrophage-like cells leading to more severe atherosclerosis in mice	Atherosclerosis		2025	Ilamaran, Meganathan, Tolga, Kilic, Razoan, Al Rimon, Tushar, Naiya, Vidhya, Krishnan, Nikki, Atanasova, Anthony, Wong, Gavin Y., Oudit, Slava, Epelman, Zamaneh, Kassiri	No
The transcription factor RBPI is required for inflammatory macrophage activation in thoracic aortic dissection by mediating mechanotransduction-induced glycolysis	Cellular and Molecular Life Sciences		2025	Zhi Qiang, Yin, Ting, Wen, Xiu Li, Cao, Zhao Xia, Lv, Yang, Su, Liang, Liang, Pei Ran, Zhang, Zi Yan, Yang, Hua, Han, Xian Chun, Yan, Qi Jun, Zheng	No

Title	Journal	Link	Publication date	References	Top Paper
Enhanced atherosclerosis molecular imaging and therapy with collagen hybridizing peptide functionalized albumin nanoparticles	Journal of Nanobiotechnology		2025	Jianan, He, Jianxun, Cai, Jingjing, Zhang, Yang, Li, Kunpeng, Wei, Chenshu, Liu, Leye, Yan, Xinyan, Hu, Lin, Huang, Hairun, Gan, Dashuai, Wang, Bing, Li, Huitao, Zhang, Pengfei, Pang	No
Ras-related protein 2 limits vascular smooth muscle cell phenotypic switching and abdominal aortic aneurysm development	Nature Communications		2025	Shanshan, Luo, Jiyu, Chen, Ke, Zhong, Xiaoqi, Wu, Rui, Li, Tianyu, Song, Zhongxu, Sun, Shixiu, Sun, Xinlong, Tang, Yan, Zhang, Zhi Ren, Zhang, Bo, Yu, Jinwei, Tian, Li, Li, Aihua, Gu, Feng, Chen, Dongjin, Wang, Jun, Pu, Yi, Han, Liping, Xie, Yong, Ji	No
Turbulence drives arteriovenous remodeling: an experimentally validated multi-scale model of neointimal hyperplasia	Physics in medicine and biology		2025	M. Alyssa, Varsanik, Carly, Thaxton, Duc, Nguyen, Joseph A., Pugar, Sanjeev, Dhara, Willa, Li, Nhung, Nguyen, Alan, Dardik, Luka, Pociavsek	No
Thiol-polarity dual cascade-triggered two-photon imaging of protein unfolding for early atherosclerosis diagnosis	Sci. Adv	https://www.science.org	2025	Jingjing, Li, Yihui, Miao, Wei, Pan, Na, Li, Bo, Tang	No
Visualization of OPN-Targeted Self-Assembled Micelles Encapsulated With an SIRT6 Activator and Doped Indocyanine Green for Attenuating Vascular Aging	Aging Medicine		2025	Yan, Fang, Wenyue, Li, Cheng, Qin, Mengqi, Xu, Naiyuan, Sun, Tingting, Lu, Zhiyi, Fang, Yan, Ma, Linghuan, Wang, Sulei, Li, Xiaojing, Wan, Hui, Li, Renzheng, Chen, Xiaoying, Shen, Lei, Tian, Jing, Liu, Yi, Hou, Feng, Cao	No
Targeting the PI3K/Akt/NF-κB axis: Cluster of differentiation 5-like-mediated immunometabolic regulation of macrophage polarization in abdominal aortic aneurysm	Journal of Cell Communication and Signaling		2025	Hemoren, Yi, Nan, Liu, Zhengyang, Wu, Lei, Li, Tingting, Li, Qixiang, Liu, Man, Duan, Taihu, Wan	No
Plasminogen Activator Inhibitor-1 promotes aortic aging-1 like pathophysiology in humans and mice				Alireza, Khoddam, Anthony, Kalousdian, Mesut, Eren, Saul, Soberanes, Andrew, Decker, Elizabeth J, Lux, Benjamin W, Zywicki, Brian, Dinh, Bedirhan, Boztepe, Baljash S, Cheema, Carla M, Cuda, Hiam, Abdala-Valencia, Arun, Sivakumar, Toshio, Miyata, Lisa D, Wilsbacher, Douglas E, Vaughan	No
Establishment of a Modified Ferric Chloride-Induced Canine Superficial Femoral Artery Thrombosis Model	ACS Omega		2025	Wang, Song, Yingwen, Wang, Shuting, Li, Chunmei, Long, Xiang, Han, Xingqi, Fang, Zhen, Li, Yuwei, Yang, Shihao, Zhu, Xuanyin, Chen, Qi, Wang, Baolai, Zhang, Li, Lu	No
Central Artery Hemodynamics in Angiotensin II-Induced Hypertension and Effects of Anesthesia	Annals of Biomedical Engineering		2024	S. E., Hopper, D., Weiss, N., Mikush, B., Jiang, B., Spronck, C., Cavinato, J. D., Humphrey, C. A., Figueroa	No
Neutrophil extracellular traps induce endothelial damage and exacerbate vasospasm in traumatic brain injury	Theranostics	https://www.thno.org/v15p9221.htm	2025	Jinchao, Wang, Lei, Li, Jianye, Xu, Dilmurat, Gheyret, Kaiji, Li, Xu, Zhang, Haoran, Jia, Ye, Tian, Xiao, Liu, Shenghui, Li, Guili, Yang, Yalong, Gao, Ruilong, Peng, Huajie, Liu, Bin, Liu, Jianfeng, Zhuang, Cong, Wang, Xin, Chen, Yafan, Liu, Bo, Chen, Chuan, Huang, Yuhan, Li, Xin, Chen, Jianning, Zhang, Shu, Zhang	No

Title	Journal	Link	Publication date	References	Top Paper
Divergent roles of red cell arginase in humans and mice: RBC Arg1 KO mice show preserved systemic L-arginine bioavailability and infarct size in vivo	Redox Biology		2025	Sophia K., Heuser, Junjie, Li, Zhixin, Li, Anthea, LoBue, Kyle, Heard, Julia, Hocks, Tatsiana, Suvorava, Ron Patrick, Cadeddu, Corinna, Strupp, Luke, Dunaway, Zhengbing, Zhuge, Stacy L., Gelhaus, André, Heinen, Ulrich, Germing, Martin, Feelisch, Mattias, Carlström, Brant, Isakson, Malte, Kelm, Jon O., Lundberg, Miriam M., Cortese-Krott	No
Targeting USP21 to inhibit abdominal aortic aneurysm progression by suppressing the phenotypic transition of vascular smooth muscle cells	Cell Reports Medicine	https://linkinghub.elsevier.com/retrieve/pii/S266637912500401X	2025	Huidan, Zhang, Hongwei, Yue, Yijun, Sun, Guangqi, Sun, Kehui, Yang, Tangxing, Jiang, Sumei, Cui, Yang, Liu, Yunyun, Guo, Wencheng, Zhang, Cheng, Zhang, Yuguo, Chen, Feng, Xu	No
Region-specific gene expression and sex inform about disease susceptibility in the aorta	Nature Cardiovascular Research		2025	Milagros C., Romay, Feiyang, Ma, Ana, Mompeón, Michele, Silvestro, Gloria E., Hernandez, Jocelynda, Salvador, Andrew L., Wang, Marie, Vandestienne, Nathalie, Bardin, Marcel, Blot-Chabaud, Aurelie S., Leroyer, Hafid, Ait-Oufella, Bhama, Ramkhelawon, M. Luisa, Iruela-Arispe	No
M2 macrophage-derived extracellular vesicles protect against abdominal aortic aneurysm by modulating macrophage polarization through miR221-5p	Cellular and Molecular Biology Letters		2025	Yang, Ma, Xiang Jiu, Ding, Si Yu, Lu, Xiao Fang, Huang, Yuan Yuan, Hu, Han, Liu, Bin, Liu, Ke Yin, Liu, Ming Xiang, Zhang, Hao, Wang, Feng, Xu, Wei Dong, Qin	No
Sox17 mediates venous adaptive remodeling after arteriovenous fistula creation	JVS-Vascular Science	https://linkinghub.elsevier.com/retrieve/pii/S2666350325001130	2025	Yukihiko, Aoyagi, Andrew W., Schwartz, Zhuo, Li, Hualong, Bai, Bryan, Ho, Cayetana, Lazzano-Etchebarne, Luis, Gonzalez, Yuichi, Ohashi, Masaki, Kano, Bogdan, Yatsula, Cassius Iyad, Ochoa Char, Kathleen, Martin, Roberto, Vazquez-Padron, Guohao, Dai, Alan, Dardik	No
PGC1α regulates the mitochondrial metabolism response to cyclic stretch, which inhibits neointimal hyperplasia	Cellular and Molecular Life Sciences	https://link.springer.com/10.1007/s00018-025-05790-x	2025	Minwen, Zou, Kaichuang, Ye, Jing, Yan, Shoumin, Zhang, Han, Bao, Zhiyin, Li, Yuting, Tao, Xing, Zhang, Wenhao, Tian, Yingxin, Qi, Yunlong, Huo, Yue, Han	No
Histone deacetylase 9-mediated phenotypic transformation of vascular smooth muscle cells is a potential target for treating aortic aneurysm/dissection	Biomedicine and Pharmacotherapy		2024	Zhiqiao, Dang, Haijie, Li, Shishan, Xue, Baowei, Shao, Yansong, Ning, Guohai, Su, Fengquan, Zhang, Wenqian, Yu, Shuai, Leng	No
Controllable Thrombolysis Using a Nanobubble-Imaging-Guided rtPA Targeted Delivery Strategy	BME Frontiers		2024	Jian, Tang, Huiting, Xu, Mingxi, Li, Yang, Liu, Fang, Yang	No
Angiotoxic effects of chlorinated polyfluorinated ether sulfonate, a novel perfluorooctane sulfonate substitute, in vivo and in vitro	Journal of Hazardous Materials		2024	Zhenzhen, Tan, Junli, Lv, Haoran, Li, Ziwen, An, Longfei, Li, Yijia, Ke, Yi, Liu, Xuehui, Liu, Lei, Wang, Ang, Li, Huicai, Guo	No
Adaptor protein HIP-55 promotes macrophage M1 polarization through promoting AP-1 complex activation	Cellular Signalling		2024	Jingwei, Bian, Yuzhong, Zhu, Panhui, Tian, Qiqi, Yang, Zijian, Li	No

Title	Journal	Link	Publication date	References	Top Paper
Allograft Model of Aortic Arch Segment Grafting to Abdominal Aorta Through End-to-Side Anastomosis in Mice	Journal of Cardiovascular Translational Research		2024	Chiyu, Liu, Qi, Chen, Mingyuan, He, Yulin, Liao	No
Pro-ferroptotic signaling promotes arterial aging via vascular smooth muscle cell senescence	Nature Communications		2024	Di Yang, Sun, Wen Bin, Wu, Jian Jin, Wu, Yu, Shi, Jia Jun, Xu, Shen Xi, Ouyang, Chen, Chi, Yi, Shi, Qing Xin, Ji, Jin Hao, Miao, Jiang Tao, Fu, Jie, Tong, Ping Ping, Zhang, Jia Bao, Zhang, Zhi Yong, Li, Le Feng, Qu, Fu Ming, Shen, Dong Jie, Li, Pei, Wang	No
Exercise mitigates flow recirculation and activates metabolic transducer SCD1 to catalyze vascular protective metabolites	Sci. Adv	https://www.science.org	2024	Susana, Cavallero, Mehrdad, Roustaei, Sandro, Satta, Jae, Min Cho, Henry, Phan, Kyung, In Baek, Ana M, Blázquez-Medela, Sheila, Gonzalez-Ramos, Khoa, Vu, Seul-Ki, Park, Tomohiro, Yokota, Jennifer, Sumner, Julia J, Mack, Curt D, Sigmund, Srinivasa T, Reddy, Rongsong, Li, Tzung K, Hsial	No
Distinct cellular microenvironment with cytotypic effects regulates orderly regeneration of vascular tissues	Materials Today Bio		2024	Jian, Wang, Xun, Yang, Miaomiao, Xu, Hui, Liu, Lijun, Liu, Zhikai, Tan	No
Establishment of a hybrid model of atherosclerosis and acute colitis in ApoE-/-mice	PLoS ONE		2024	Keke, Chen, Shengwei, Zhang, Guanghui, Cui, Xue, Zhang, Yujian, Song, Jie, Zheng, Yun, Chen, Tingting, Zheng	No
A central arteriovenous fistula reduces systemic hypertension in a mouse model	JVS-Vascular Science		2024	Anand, Brahmandam, Rafael, Alves, Hao, Liu, Luis, Gonzalez, Yukihiko, Aoyagi, Yuichi, Ohashi, John T., Langford, Carly, Thaxton, Ryosuke, Taniguchi, Weichang, Zhang, Hualong, Bai, Bogdan, Yatsula, Alan, Dardik	No
Thermoresponsive polymer encapsulated HT1080 exosomes lyse localized blood clot: A preclinical evaluation in rat carotid artery thrombosis model	Journal of Drug Delivery Science and Technology		2024	Ankita, Das, Aman, Nikhil, Babita, Yadav, Kumaravelu, Jagavelu, Ashok, Kumar	No
Glutamine Protects against Mouse Abdominal Aortic Aneurysm through Modulating VSMC Apoptosis and M1 Macrophage Activation	International Journal of Medical Sciences		2024	Jinxin, Wang, Xingwen, Da, Yifei, Chen, Ancai, Yuan, Jun, Pu	No
Pentamethylquercetin attenuates angiotensin II-induced abdominal aortic aneurysm formation by blocking nuclear translocation of C/EBPβ at Lys253	Biochimica et Biophysica Acta - Molecular Basis of Disease		2024	Hanlin, Wu, Jing, Wang, Yuxin, Bu, Jia, Li, Yiming, Li, Quanmin, Jing, Xiaozeng, Wang, Chenghui, Yan, Dan, Liu, Yaling, Han	No
Exploring the role of myeloperoxidase in the atherosclerotic process in hypoxic mice based on the MAPK signaling pathway	Biochemical Pharmacology		2024	Jingxuan, Zhang, Ying, Han, Ruhan, Jia, Qinfang, Zhu, Xiaozhou, Wang, Meiheng, Liu, Wei, Zhang	No
Neutrophil extracellular traps formation may be involved in the association of propranolol with the development of portal vein thrombosis	Thrombosis Research		2024	Xiangbo, Xu, Shixue, Xu, Yiyang, Zhang, Le, Wang, Chenghui, Yan, Zihua, Xu, Qingchun, Zhao, Xingshun, Qi	No
Transformation of metallo-elastomer grafts in a carotid artery interposition model over a year	Biomaterials		2024	Ying Grace, Chen, Catia, Dombaxe, Anthony Richard, D'Amato, Simon, Van Herck, Halle, Welch, Qin, Fu, Sheng, Zhang, Yadong, Wang	No

Title	Journal	Link	Publication date	References	Top Paper
Urotensin II receptor deficiency ameliorates ligation-induced carotid intimal hyperplasia partially through the RhoA-YAP1 pathway	Biochimica et Biophysica Acta - Molecular Basis of Disease		2024	Panpan, Wei, Kangli, Tian, Haole, Liu, Kexin, Li, Naqash, Alam, Daxin, Cheng, Meng, Li, Xue, He, Jia, Guo, Rong, Wang, Weirong, Wang, Liang, Bai, Enqi, Liu, Baohui, Xu, Yankui, Li, Sihai, Zhao	No
Reduced fetal cerebral blood flow predicts perinatal mortality in a mouse model of prenatal alcohol and cannabinoid exposure	BMC Pregnancy and Childbirth		2024	Siara Kate, Rouzer, Anirudh, Sreeram, Rajesh C., Miranda	No
Mitochondrial targeted catalase improves muscle strength following arteriovenous fistula creation in mice with chronic kidney disease	Scientific Reports		2024	Kyoungrae, Kim, Brian, Fazzino, Tomas A., Cort, Eric M., Kunz, Samuel, Alvarez, Jack, Moerschel, Victoria R., Palzkill, Gengfu, Dong, Erik M., Anderson, Kerri A., O'Malley, Scott A., Bercell, Terence E., Ryan, Salvatore T., Scali	No
Enhancing the therapeutic potential of isoliensinine for hypertension through PEG-PLGA nanoparticle delivery: A comprehensive in vivo and in vitro study	Biomedicine and Pharmacotherapy		2024	Mengying, Yao, Ming, Wu, Meng, Yuan, Meizhu, Wu, Aling, Shen, Youqin, Chen, Dawei, Lian, Xiaolong, Liu, Jun, Peng	No
Photocurable extracellular matrix sealant for cessation of venous hemorrhage	Journal of Biomedical Materials Research - Part B Applied Biomaterials		2024	Luke E., Schepers, Brooke L., Martindale, Alycia G., Berman, Hannah L., Cebull, William, Van Alstine, Sydney E., Hollingshead, Tyler, Novak, Craig J., Goergen	No
Liraglutide attenuates angiotensin II-induced aortic dissection and aortic aneurysm via inhibiting M1 macrophage polarization in APOE -/- mice	Biochemical Pharmacology		2024	Keyin, Zhang, Ruisha, Li, Yusanjan, Matniyaz, Ronghuang, Yu, Jun, Pan, Wenxue, Liu, Dong Jin, Wang	No
A highly selective mPGES-1 inhibitor to block abdominal aortic aneurysm progression in the angiotensin mouse model	Scientific Reports		2024	Lauren M., Weaver, Madeline J., Stewart, Kai, Ding, Charles D., Loftin, Fang, Zheng, Chang Guo, Zhan	No
Macrophage-Targeted multifunctional nanoparticles for detection and treatment of intraplaque hemorrhage	Chemical Engineering Journal		2024	Haiyang, Wang, Min, Zheng, Yushi, Chen, Long, Cheng, Xiaotong, Qi, Huijin, Yu, Jianming, Sun, Junjie, Liu, Ruoyao, Wang, Yaqin, Hu, Tao, Lin, Ying, Zhang, Wen, Xu, Tingting, Wang, Zhigang, Wang, Jianting, Yao, Pintong, Huang, Haitao, Ran	No
Toll-like receptor 4 mutation mitigates gut microbiota-mediated hypertensive kidney injury	Pharmacological Research		2024	Suravi, Majumder, Sathnur B., Pushpakumar, Hebah, Almarshood, Rosemary, Ouseph, Dibson D., Gondim, Venkatakrishna R., Jala, Utpal, Sen	No
Impaired memory in Sprague-Dawley rats exposed to complex groundwater mixtures of contaminants is associated with reduced cranial blood flow and hippocampal neurotoxicity	NeuroToxicology		2024	B., Boamah, C., Morse, S., Siciliano, N., Hogan, M., Hecker, M., Hanson, P., Campbell, R., Peters, A. N., Al-Dissi, T. D., Olver, L., Weber	No
Site-specific genetic and functional signatures of aortic endothelial cells at aneurysm predilection sites in healthy and AngII ApoE-/- mice	Angiogenesis		2024	Alexander, Brückner, Adrian, Brandtner, Sarah, Rieck, Michaela, Matthey, Caroline, Geisen, Benedikt, Fels, Marta, Stei, Kristina, Kusche-Vihrog, Bernd K., Fleischmann, Daniela, Wenzel	No

Title	Journal	Link	Publication date	References	Top Paper
Heterogeneous gene expression during early arteriovenous fistula remodeling suggests that downregulation of metabolism predicts adaptive venous remodeling	Scientific Reports		2024	Yuichi, Ohashi, Clinton D., Protack, Yukihiko, Aoyagi, Luis, Gonzalez, Carly, Thaxton, Weichang, Zhang, Masaki, Kano, Hualong, Bai, Bogdan, Yatsula, Rafael, Alves, Katsuyuki, Hoshina, Eric B., Schneider, Xiaochun, Long, Rachel J., Perry, Alan, Dardik	No
Berberine ameliorates vascular dysfunction by downregulating TMAO-endoplasmic reticulum stress pathway via gut microbiota in hypertension	Microbiological Research		2024	Zhichao, Wang, Yijia, Shao, Fang, Wu, Dangu, Luo, Guoyifan, He, Jianwen, Liang, Xiaoqing, Quan, Xiehui, Chen, Wenhao, Xia, Ye, Chen, Yue, Liu, Long, Chen	No
Gestational exposure to air pollutants perturbs metabolic and placenta-fetal phenotype	Reproductive Toxicology		2024	Amit, Ganguly, Shubhamoy, Ghosh, Bo Chul, Shin, Marlin, Touma, Madhuri, Wadehra, Sherin U., Devaskar	No
Aging aggravates aortic aneurysm and dissection via miR-1204-MYLK signaling axis in mice	Nature Communications		2024	Ze Long, Liu, Yan, Li, Yi Jun, Lin, Mao Mao, Shi, Meng Xia, Fu, Zhi Qing, Li, Da Sheng, Ning, Xiang Ming, Zeng, Xiang, Liu, Qing Hua, Cui, Yue Ming, Peng, Xin Min, Zhou, Ye Rong, Hu, Jia Sheng, Liu, Yu Jia, Liu, Mian, Wang, Chun Xiang, Zhang, Wei, Kong, Zhi Jun, Ou, Jing Song, Ou	No
Impact of bradykinin type 2 receptor overexpression on cardiovascular function in mice	Biochemical Pharmacology		2025	Sara, Metry, Tatsiana, Suvorava, Jens W., Fischer, Vu Thao Vi, Dao, Georg, Kojda	No
SGLT2 inhibitor downregulated oxidative stress via activating AMPK pathway for cardiorenal (CR) protection in CR syndrome rodent fed with high protein diet	Journal of Molecular Histology		2024	Chih Chao, Yang, Kuan Hung, Chen, Ya, Yue, Ben Chung, Cheng, Tsuen Wei, Hsu, John Y., Chiang, Chih Hung, Chen, Fanna, Liu, Jie, Xiao, Hon Kan, Yip	No
Fluorescence and photoacoustic (FL/PA) dual-modal probe: Responsive to reactive oxygen species (ROS) for atherosclerotic plaque imaging	Biomaterials		2025	Qianqian, Yu, Yi, Duan, Nian, Liu, Zhirong, Zhu, Ying, Sun, Haojian, Yang, Yiqi, Shi, Xiangyu, Li, Wei Hong, Zhu, Lixin, Wang, Qi, Wang	No
Macrophage ILF3 promotes abdominal aortic aneurysm by inducing inflammatory imbalance in male mice	Nature Communications		2024	Zhao-Yang, Wang, Jie, Cheng, Ying, Wang, Hai Tao, Yuan, Shao Jie, Bi, Shuang Xi, Wang, Ya Min, Hou, Xu, Zhang, Bo Han, Xu, Ze Ying, Wang, Yun, Zhang, Wen Jian, Jiang, Yu Guo, Chen, Ming Xiang, Zhang	No
Targeting endothelial KCa channels in vivo restores arterial and endothelial function in type 2 diabetic rats	Metabolism: Clinical and Experimental		2024	Ramesh C., Mishra, Darrell D., Belke, Latika, Singh, Heike, Wulff, Andrew P., Braun	No
IL-6 signaling accelerates iron overload by upregulating DMT1 in endothelial cells to promote aortic dissection	International Journal of Biological Sciences		2024	Qiang, Xie, Jianji, Wang, Runqiao, Li, Hao, Liu, Yongliang, Zhong, Qinfeng, Xu, Yipeng, Ge, Chengnan, Li, Lizhong, Sun, Junming, Zhu	No
Ultrasound imaging for assessing aortic phenotypes: A preclinical tool for measuring cardiac disease model progression and therapeutic effect	WFUMB Ultrasound Open		2024	James, Cao, Alex, Jayyosi, Jennifer, Nietupski, Giulio, Tomassy, Ingeborg M., Langohr, Michelle, Potter, Srinivas, Rao, Dinesh S., Bangari, Xiaoyou, Ying	No

Title	Journal	Link	Publication date	References	Top Paper
Complement C3a/C3aR inhibition alleviates the formation of aortic aneurysm in Marfan syndrome mice	BMC Cardiovascular Disorders		2024	Fan, Zhang, Kexin, Yao, Yan, Liu, Mei, Zhou, Yanhong, Zhang, Shiyao, Hong, Jian, Wu, Congcong, Zhang	No
Tea polyphenol nanoparticles enable targeted siRNA delivery and multi-bioactive therapy for abdominal aortic aneurysms	Journal of Nanobiotechnology		2024	Zhen Wu, Peng, Zhang, Jie, Yue, Qingshan, Wang, Peipei, Zhuang, Shah, Jehan, Liyuan, Fan, Jiarun, Xue, Wenhu, Zhou, Haiyang, Wang	No
DNA-sensing inflammasomes cause recurrent atherosclerotic stroke	Nature		2024	Jiayu, Cao, Stefan, Roth, Sijia, Zhang, Anna, Kopczak, Samira, Mami, Yaw, Asare, Marios K., Georgakis, Denise, Messerer, Amit, Horn, Ruth, Shemer, Charlene, Jacqmarcq, Audrey, Picot, Jack P., Green, Christina, Schlegl, Xinghai, Li, Lukas, Tomas, Alexander, Dutsch, Thomas G., Liman, Matthias, Endres, Saskia R., Wernsdorf, Christina, Fürle, Olga, Carofiglio, Jie, Zhu, David, Brough, Inga, Zerr, Silke, Wunderlich, Annika, Spottke, Gabor, Petzold, Thomas G., Liman, Marios K., Georgakis, Matthias, Endres, Martin, Dichgans, Veit, Hornung, Martin, Dichgans, Denis, Vivien, Christian, Schulz, Yuval, Dor, Steffen, Tiedt, Hendrik B., Sager, Gerrit M., Grosse, Arthur, Liesz	No
Low-dose radiation promotes high-fat diet-induced atherosclerosis by activating cGAS signal pathway	Biochimica et Biophysica Acta - Molecular Basis of Disease		2024	Xiaochang, Liu, Xin, Huang, Jinhua, Luo, Shuai Ning, Gao, Chenjun, Bai, Dafei, Xie, Shan Shan, Gao, Hua, Guan, Ruixue, Huang, Ping Kun, Zhou	No
Effects of moderate doses of ionizing radiation on experimental abdominal aortic aneurysm	PLoS ONE		2024	Goran, Riazi, Chloe, Brizais, Imene, Garali, Rida, Al-Rifai, Helene, Quelquejay, Virginie, Monceau, Guillaume, Vares, Lea, Ould-Boukhitine, Damien, Aubeleau, Florian, Gilain, Celine, Gloaguen, Morgane Dos, Santos, Hafid, Ait-Oufella, Teni, Ebrahimian	No
New antidepressant mechanism of Yueju Pill: Increasing ghrelin level by inhibiting gastric mTOR/S6K signaling pathway and sensitizing hippocampal GHS-R	Heliyon		2024	Zhentaoy, Zhang, Dan, Su, Meixizi, Lai, Yonggui, Song, Huizhen, Li, Ming, Yang, Genhua, Zhu, Hong, Liu, Zhifu, Ai	No
Berberine Targets PKM2 to Activate the t-PA-Induced Fibrinolytic System and Improves Thrombolysis	Pharmaceuticals		2024	Zeqi, Sun, Tong, Zhao, Xue, Bai, Huimin, Li, Jin, Gao, Yutong, Hao, Yiyang, Li, Yanli, Xie, Ange, Hu, Qiang, Huang, Xin, Liu, Yong, Zhang	No
Activation of nuclear receptor pregnane-X-receptor protects against abdominal aortic aneurysm by inhibiting oxidative stress	Redox Biology		2024	Zhi, Shen, Jinxi, Wang, Yifei, Chen, Peiliang, Fang, Ancai, Yuan, Alex F., Chen, Xiaoxiang, Yan, Yuyan, Lyu, Jun, Pu	No
A novel role for thioredoxin-related transmembrane protein TMX4 in platelet activation and thrombus formation	Journal of Thrombosis and Haemostasis		2025	Zhenzhen, Zhao, Yucan, Wang, Aizhen, Yang, Yi, Lu, Xiaofeng, Yan, Meinan, Peng, Yue, Han, Chao, Fang, Depei, Wu, Yi, Wu	No

Title	Journal	Link	Publication date	References	Top Paper
Regional Differences in Vascular Graft Degradation and Regeneration Contribute to Dilation	Tissue Engineering - Part A		2024	Ziyu, Wang, Suzanne M., Mithieux, Kevin M., Blum, Tai, Yi, Yuichi, Matsuzaki, Nguyen T.H., Pham, Brian S., Hawkett, Toshiharu, Shinoka, Christopher K., Breuer, Anthony S., Weiss	No
Physics-Informed Graph Neural Networks to solve 1-D equations of blood flow	Computer Methods and Programs in Biomedicine		2024	Ahmet, Sen, Elnaz, Ghajar-Rahimi, Miquel, Aguirre, Laurent, Navarro, Craig J., Goergen, Stephane, Avril	No
Novel Metal-Free Nanozyme for Targeted Imaging and Inhibition of Atherosclerosis via Macrophage Autophagy Activation to Prevent Vulnerable Plaque Formation and Rupture	ACS Applied Materials and Interfaces		2024	Lingjie, Wang, Xiaoqian, Zhang, Hongrong, Zhang, Xiaozhe, Wang, Xiaofeng, Ren, Wei, Bian, Caiyun, Shi, Jingying, Wang, Liping, Li, Ruiping, Zhang, Hua, Zhang	No
Exosomal miR-155-5p promote the occurrence of carotid atherosclerosis	Journal of Cellular and Molecular Medicine		2024	Wen Wen, Yang, Qing Xiang, Li, Fei, Wang, Xin Ran, Zhang, Xian Li, Zhang, Meng, Wang, Dong, Xue, Ying, Zhao, Lu, Tang	No
Protease activated receptor 2 deficiency retards progression of abdominal aortic aneurysms by modulating phenotypic transformation of vascular smooth muscle cells via ERK signaling	Experimental Cell Research		2024	Min, Wang, Zhengde, Tang, Huasu, Zeng, Alian, Zhang, Shuying, Huang, Jiahua, Ke, Lin, Gao, Tiantian, Zhang, Yue, Wang, Alex Chia Yu, Chang, Junfeng, Zhang, Qizhi, Chen, Jun, Gu, Changqian, Wang	No
Hemodynamic disturbance and mTORC1 activation: Unveiling the biomechanical pathogenesis of thoracic aortic aneurysms in Marfan syndrome	Journal of Pharmaceutical Analysis		2025	Ming Yuan, Liu, Meili, Wang, Junjun, Liu, An Qiang, Sun, Chang Shun, He, Xin, Cong, Wei, Kong, Wei, Li	No
Deficiency of endothelial TRPV4 cation channels ameliorates experimental abdominal aortic aneurysm	European Journal of Pharmacology		2025	She Hua, Qian, Shuai, Liu, Mi, Wang, Qing, Wang, Chang Ping, Hu, Jun Hao, Huang, Zheng, Zhang	No
Hydrogen sulfide attenuates disturbed flow-induced vascular remodeling by inhibiting LDHB-mediated autophagic flux	Redox Biology		2025	Xia, Wang, Xiyang, Huang, Yongya, Zhang, Huanhuan, Huo, Guo, Zhou, Linghong, Shen, Long, Li, Ben, He	No
Application of subcutaneous extracellular matrix to prepare bilayer heparin-coated polycaprolactone/decellularized small-diameter vascular graft for tissue regeneration	International Journal of Biological Macromolecules		2025	Zeqin, Xu, Xue, Geng, Lin, Ye, Liqiang, Li, Yuehao, Xing, Jin, Cheng, Cong, Wang, Yongquan, Gu, Zhu, Tong, Lianrui, Guo	No
Combined injection of pristane and Bacillus Calmette-Guerin Vaccine successfully establishes a lupus model with atherosclerosis	Experimental Cell Research		2025	Chunru, Jiang, Zhenduo, Zhu, Yu, Tai, Meiyue, Lu, Huijuan, Cheng, Tiantian, Su, Paipai, Guo, Ruhong, Fang, Feng, He, Mingli, Ge, Qiuyun, Guan, Yongsheng, Han, Shangxue, Yan, Wei, Wei, Qingtong, Wang	No
Localized COUP-TFII pDNA Delivery Modulates Stem/Progenitor Cell Differentiation to Enhance Endothelialization and Inhibit Calcification of Decellularized Allografts	Advanced Science		2025	Mengmeng, Xing, Fei, Wang, Ruowen, Chu, He, Wang, Yuyao, Sun, Meng, Qian, Huan, Jiang, Adam C., Midgley, Guohao, Dai, Qiang, Zhao	No
CircFND3B inhibits vascular smooth muscle cells proliferation in abdominal aortic aneurysms by targeting the miR-1270/PDCD10 axis	Scandinavian Cardiovascular Journal		2025	Baoping, Deng, Jing, Xu, Yue, Wei, Jinfeng, Zhang, Na, Zeng, Yulan, He, Qiaoli, Zeng, Dehua, Zou, Runmin, Guo	No
Identification of the Vulnerability of Atherosclerotic Plaques by a Photoacoustic/Ultrasonic Dual-Modal cRGD Nanomolecular Probe	International Journal of Nanomedicine		2024	Caigui, Yu, Lu, Zhong, Yanxiang, Zhou, Nan, Jiang, Jinling, Chen, Sheng, Cao	No

Title	Journal	Link	Publication date	References	Top Paper
Engineering Hyperechogenic Colloids with Clot-Targeting Capabilities from Platelet-Derived Membranes	ACS Applied Materials and Interfaces		2024	Mark Louis P., Vidallon, Mitchell J., Moon, Haikun, Liu, Yuyang, Song, Simon, Crawford, Boon Mian, Teo, James D., McFadyen, Alexis I., Bishop, Rico F., Tabor, Karlheinz, Peter, Xiaowei, Wang	No
Glucose transporter 1 in vascular smooth muscle cells is dispensable for abdominal aortic aneurysm induced by angiotensin II	JVS-Vascular Science		2025	Keiichi, Torimoto, Hymavathi Reddy, Vari, Yuki, Nakayama, Hirotohi, Utsunomiya, Masatoshi, Takeda, Tomoki, Hashimoto, Victor, Rizzo, Satoru, Eguchi	No
Mitochondrial metabolic maturation in postnatal right ventricle restricted by volume overload	Intractable and Rare Diseases Research		2025	Juan, Cao, Yingying, Xiao, Haifa, Hong, Zhongzhong, Chen, Wenjun, Qin	No
Qingre Sanjie Formula alleviates atherosclerosis by promoting LXR-α/ABCG5/G8-mediated reverse cholesterol transport and bile acid synthesis	Phytomedicine		2025	Xiao, Li, Xianglong, Huang, Keyan, Song, Jinjie, Liu, Ya, Jin, Tianxiang, Li, Lishuang, Zhang, Han, Zhang	No
Tranexamic acid-fatty alcohol polyoxyethylene ether conjugation/PVA foam for venous sclerotherapy via vascular damage and inhibiting plasmin system	Acta Pharmaceutica Sinica B		2025	Jizhuang, Ma, Keda, Zhang, Wenhuan, Li, Yu, Ding, Yongfeng, Chen, Xiaoyu, Huang, Tong, Yu, Di, Song, Haoran, Niu, Huichao, Xie, Tianzhi, Yang, Xiaoyun, Zhao, Xinggong, Yang, Pingtian, Ding	No
Local characterization of collagen architecture and mechanical properties of tissue engineered atherosclerotic plaque cap analogs	Acta Biomaterialia		2025	Hanneke, Crielaard, Tamar B., Wissing, Su, Guvenir Torun, Gert Jan, Kremers, Pablo, de Miguel, Ranmadusha M., Hengst, Frank J.H., Gijzen, Ali C., Akyildiz, Kim, van der Heiden	No
Inhibition of ATP-citrate lyase by bempedoic acid protects against abdominal aortic aneurysm formation in mice	Biomedicine and Pharmacotherapy		2025	Lidia, Puertas-Umbert, Judith, Alonso, Laia, Blanco-Casoliva, Rafael, Almendra-Pegueros, Mercedes, Camacho, Antonio, Rodríguez-Sinovas, María, Galán, Nuria, Roglans, Juan Carlos, Laguna, José, Martínez-González, Cristina, Rodríguez	No
Protocol for studying the superior mesenteric artery in mice using non-invasive micro-ultrasound imaging and anatomic dissection	STAR Protocols		2025	Haiping, Chen, Yangjing, Jiang, Huanhuan, Huo, Guo, Zhou, Min, Liang, Yijie, Huang, Yunwen, Hu, Ziwei, Zhang, Ben, He, Zhaohua, Cai	No
MARCH5 ameliorates aortic valve calcification via RACGAP1-DRP1 associated mitochondrial quality control	Biochimica et Biophysica Acta - Molecular Cell Research		2025	Jialiang, Zhang, Yaoyu, Zhang, Wenhua, Lei, Jing, Zhou, Yanjiani, Xu, Zhou, Hao, Yanbiao, Liao, Fangyang, Huang, Mao, Chen	No
Steatohepatitis-induced vascular niche alterations promote melanoma metastasis	Cancer & Metabolism		2025	Johannes, Hoffmann, Julia, Schüler, Bianca, Dietsch, Sina Wietje, Kürschner-Zacharias, Carsten, Sticht, Felix A., Trogisch, Maren, Schreitmüller, Tinja, Baljkas, Kai, Schledzewski, Manuel, Reinhart, Sebastian A., Wohlfeil, Manuel, Winkler, Christian David, Schmid, Joerg, Heineke, Cyrill, Géraud, Sergij, Goerd, Philipp-Sebastian, Reiners-Koch, Victor, Olsavszky	No

Title	Journal	Link	Publication date	References	Top Paper
Inhibition of vascular smooth muscle cell PERK/ATF4 ER stress signaling protects against abdominal aortic aneurysms	JCI Insight		2025	Brennan, Callow, Xiaobing, He, Nicholas, Juriga, Kevin D., Mangum, Amrita, Joshi, Xianying, Xing, Andrea, Obi, Abhijnan, Chattopadhyay, Dianna M., Milewicz, Mary X., O'Riordan, Johann, Gudjonsson, Katherine, Gallagher, Frank M., Davis	No
Co-exposure to polystyrene nanoplastics and F-53B induces vascular endothelial cell pyroptosis through the NF-κB/NLRP3 pathway	Journal of Hazardous Materials		2025	Junli, Lv, Zhenzhen, Tan, Ziwen, An, Rui, Xu, Huaxing, Zhang, Mingmei, Guo, Fang, Xiao, Mengwei, Zhao, Yi, Guo, Yi, Liu, Xuehui, Liu, Jingtao, Ma, Huicai, Guo	No
Lead-induced actin polymerization aggravates neutrophil extracellular trap formation and contributes to vascular inflammation	Ecotoxicology and Environmental Safety		2025	Qiyong, Nong, Yanjun, Wu, Suhui, Liu, Yinyin, Tang, Jiayun, Wu, Hongmei, Huang, Jiaying, Hong, Yiru, Qin, Ruimei, Xu, Wenxia, Zhao, Baowei, Chen, Zhenlie, Huang, Ligang, Hu, Na, Zhao, Yongshun, Huang	No
Ablation of Hepatic Asah1 Gene Disrupts Hepatic Lipid Homeostasis and Promotes Fibrotic Nonalcoholic Steatohepatitis in Mice	American Journal of Pathology		2025	Rui, Zuo, Mi, Wang, Yun Ting, Wang, Yang Ping, ShenTu, Alexandra K., Moura, Ying, Zhou, Kiana, Roudbari, Jenny Z., Hu, Pin Lan, Li, Jiu Kuan, Hao, Xiang, Li, Yang, Zhang	No
Mangiferin Attenuates Ang II-Induced Abdominal Aortic Aneurysm by Blocking Lys591-Mediated Nuclear Translocation of STAT3	Phytomedicine	https://linkinghub.elsevier.com/retrieve/pii/S0944711325007408	2025	Shaopeng, Cheng, Yilin, Wang, Tingting, Tong, Chen, Liu, Jintao, Qian, Qiuyan, Zong, Dongjin, Wang, Kai, Li, Xiaoting, Wu, Jie, Yang	No
Engineering biomimetic nanovesicles for PEBP1 mRNA delivery to inhibit ferroptosis in abdominal aortic aneurysm	Bioengineering and Translational Medicine		2025	Lulu, Chen, Bicheng, Chen, Xiang, Su	No
Prolonged Chronic Cerebral Hypoperfusion Does not Exacerbate Tau Pathology in a Tauopathy Mouse Model	Journal of Integrative Neuroscience		2025	Na Kyung, Lee, Duk L., Na, Hee Jin, Kim, Hyemin, Jang, Jason K., Sa, Bae Sung, Ko, Jong Wook, Chang	No
Thiol isomerase ERp18 enhances platelet activation and arterial thrombosis	Research and Practice in Thrombosis and Haemostasis		2025	Chao, He, Aizhen, Yang, Keyu, Lv, Yuxin, Zhang, Zhenzhen, Zhao, Yi, Lu, Chao, Fang, Yue, Han, Depei, Wu, Miao, Jiang, Jingyu, Zhang, Yi, Wu	No
Activation of AMP-activated Protein Kinase by Metformin Inhibits Dedifferentiation of Platelet-derived Growth Factor-BB-induced Vascular Smooth Muscle Cells to Improve Arterial Remodeling in Cirrhotic Portal Hypertension	CMGH		2025	Guangbo, Wu, Qiang, Fan, Min, Chen, Guqing, Luo, Zhenghao, Wu, Jinbo, Zhao, Jiayun, Lin, Chihao, Zhang, Hongjie, Li, Xiaoliang, Qi, Haizhong, Huo, Lei, Zheng, Meng, Luo	No
Pharmacological and genetic inhibition of BTK ameliorates vascular degeneration, dissection, and rupture	Life Sciences		2025	Songwen, Li, Gang, Liu, Shuo, Cheng, Xin, Li, Xinyu, Weng, Jing, Yang	No
Sex-specific characterization of aortic function and inflammation in a new diet-induced mouse model of metabolic syndrome	FASEB Journal		2025	Vivian, Tran, Holly, Brettle, Henry, Diep, Hericka Bruna, Figueiredo Galvao, Kerry V., Fanson, Christopher G., Sobey, Grant R., Drummond, Antony, Vinh, Maria, Jelinic	No
From inflammation to remodelling: A novel BASP1+ monocyte subset as a catalyst for acute aortic dissection	Journal of Advanced Research		2025	Wenhui, He, Sanjiu, Yu, Jun, Li, Siyu, Li, Zongtao, Chen, Jingyu, Zhang, Yangwuyue, Liu, Mi, Zhou, Teng, Yang, Wei, Cheng, Shuang Shuang, Dai	No

Title	Journal	Link	Publication date	References	Top Paper
MLKL activity requires a splicing-regulated, druggable intramolecular interaction	Molecular Cell		2025	Uris, Ros, Veronica, Martinez-Osorio, Pedro A., Valiente, Yasmin, Abdelwahab, Milos, Gojkovic, Raed, Shalaby, Silvia, Zanna, Julia, Saggau, Laurens, Wachsmuth, Harshal N., Nemade, Jonathan, Zoeller, Hannah, Lottermoser, Yu Guang, Chen, Mohamed, Ibrahim, Konstantinos, Kelepouras, Lazaros, Vasilikos, Paula, Bedoya, Rafael A., Espiritu, Stefan, Müller, Veronika, Altmannova, D. Peter, Tieleman, John, Weir, Julian, Langer, Matti, Adam, Henning, Walczak, W. Wei Lynn, Wong, Gianmaria, Liccardi, Martin, Mollenhauer, Manolis, Pasparakis, Nieves, Peltzer, Ana J., García-Sáez	No
Mechanical Biomimetic Nanocomposites for Multidimensional Treatment of Arterial Thrombosis	Advanced Science		2025	Ying, Li, Qi, Xiang, Yan, Zhang, Fuxue, Luo, Yunfang, Wu, Haitao, Ran, Yang, Cao	No
Osteocalcin deficiency attenuates neointima formation after vascular injury in rat	BMC Cardiovascular Disorders	https://bmccardiovascdisord.biomedcentral.com/articles/10.1186/s12872-025-05000...	2025	Ming, Yi, Yan, Li, Jinghao, Sun, Jin, Si, Huirong, Liu, Jing, Li	No
Vascular remodeling in arteriovenous fistula treated with PDE5A inhibitors	Physiological Reports		2025	Maheshika, Somarathna, Hannah, Northrup, Kevin, Ingle, Tatyana, Isayeva-Waldrop, Nguyen Thuy Nhu, Nguyen, Bailey, Lose, Yan Ting, Shiu, Timmy, Lee	No
Botulinum toxin (A)-induced bone loss is associated with increased blood velocity and reduced vascular bone porosity	Journal of Bone and Mineral Research		2025	Mahmoud S, Moussa, Taylor, de Vet, Nadine, Lebciur, Paul, Zaslansky, Lorraine E, Chalifour, Bettina M, Willie, Svetlana V, Komarova	No
Sustained tenascin-C expression drives neointimal hyperplasia and promotes aortocaval fistula failure	American Journal of Physiology - Heart and Circulatory Physiology		2025	Luis A., Gonzalez, Weichang, Zhang, Hualong, Bai, Ryosuke, Taniguchi, Abhay B., Ramachandra, Daniel G., Jovin, Yuichi, Ohashi, Mytien, Nguyen, Carly, Thaxton, Bogdan, Yatsula, Roberto L., Vazquez-Padron, Jay D., Humphrey, Kathleen A., Martin, Themis R., Kyriakides, Alan, Dardik	No
Myeloperoxidase impacts vascular function by altering perivascular adipocytes' secretome and phenotype in obesity	Cell Reports Medicine		2025	Alexander, Hof, Max, Landerer, Philipp, Peitsmeyer, Ronja, Herzog, Jens, Alber, Maysam, Ahdab, Felix Sebastian, Nettersheim, Dennis, Mehrkens, Simon, Geißen, Simon, Braumann, Henning, Guthoff, Philipp, von Stein, Harshal, Nemade, Felix Simon Ruben, Picard, Ramona, Braun, Friedrich Felix, Hoyer, Jens Claus, Brüning, Alexander, Pfeifer, Staffan, Hildebrand, Holger, Winkels, Stephan, Baldus, Matti, Adam, Jasper, Schäkel, Martin, Mollenhauer	No

Title	Journal	Link	Publication date	References	Top Paper
Dysregulated cholesterol uptake and efflux of bone marrow-derived α-SMA+ macrophages contribute to atherosclerotic plaque formation	Cellular and Molecular Life Sciences		2025	Menglu, Li, Lili, Wu, Yuxin, Wen, Anni, Wang, Xiao, Zhou, Lijie, Ren, Qiongyu, Lu, Fengchan, Li, Li, Zhu, Chaojun, Tang	No
C/EBPβ activation in vascular smooth muscle cells promotes hyperlipidemia-induced phenotypic transition and arterial stiffness	Signal Transduction and Targeted Therapy		2025	Jun, Ma, Xiangyu, Yang, Yanan, Li, Xin, Zhang, Kai, Liu, Yong, Peng, Si, Wang, Rufeng, Shi, Xingwei, Huo, Xueting, Liu, Xinran, Li, Runyu, Ye, Zhipeng, Zhang, Changqiang, Yang, Lu, Liu, Dan, Gao, Shanshan, Jia, Lirong, Sun, Xianghao, Zuo, Qingtao, Meng, Xiaoping, Chen	No
Age-Dependent Correlation of Pulmonary Function Impairment and Aortic Arch Stiffness in Mice	Pediatric Discovery		2025	Ayman, Isbatan, Samuel M., Lee, Ali Imran, Sarwar, Yuxing, Yuan, Sunny, Chen, Maricela, Castellon, Dan A., Marian, Richard D., Minshall, Jie, Tian, Irena, Levitan, Jiwang, Chen	No
Aldosterone-Induced Transformation of Vascular Smooth Muscle Cells into Macrophage-like Cells Participates in Inflammatory Vascular Lesions	International Journal of Molecular Sciences		2025	Boya, Zhang, Ziqian, Liu, Yi, Chang, Ruyan, Lv, Haixia, Guo, Panpan, Qiang, Tatsuo, Shimosawa, Qingyou, Xu, Fan, Yang	No
Novel Humanized Aortic Valve Calcification Model	Circulation Research		2025	Dunpeng, Cai, Lindsey, Saint, John, Markley, Shi You, Chen	No
Sex differences in middle cerebral artery reactivity and hemodynamics independent from changes in systemic arterial stiffness in Sprague-Dawley rats	Physiological Reports		2025	Jonathan W., Ray, Xuming, Sun, Nildris, Cruz-Diaz, Victor M., Pulgar, Liliya M., Yamaleyeva	No
DAPK1 acts as a positive regulator of hypertension via induction of vasoconstriction	Clinical Science		2025	Xiuli, Zhang, Ying, Cheng, Yao, Lu, Nanhui, Xu, Zhi, Guo, Meizhu, Wu, Guosheng, Lin, Mengying, Yao, Yanyan, Yang, Yao, Lin, Jun, Peng, Aling, Shen	No
Single-cell RNAseq of Angiotensin II-induced abdominal aortic tissue identifies aneurysm-associated cell clusters in C57BL/6J mice	Bioscience Reports		2025	Huimin, Li, Xueyu, Hao, Peng, Zhang, Jun, Guo, Wei, Li	No
Radial artery intima-media thickening is a sensitive marker of atherosclerosis and coronary artery stenosis: a lesson from a 6-year study of a spontaneous monkey model	Molecular and Cellular Biochemistry		2025	Jue, Wang, Wen, Zheng, Haibao, Shang, Lin, Pan, Ye, Yuan, Wenli, Chen, Chunguang, Guo, Shihan, Li, Xueting, Sun, Jing, Guo, Xiuqin, Zhang	No
Proximal aortic aneurysms in mice underexpressing transforming growth factor-β1	Journal of Physiological Sciences		2025	Masao, Kakoki, John R., Hagaman, Masahiko, Terajima, Masako, Nagasawa, Katsumi, Uoshima, Mitsuo, Yamauchi, Oliver, Smithies, Kenji, Kansaku	No
Taurolidine inhibits influenza virus infection and prevents influenza-induced cytokine storm, vasoconstriction and lung damage	Cellular and Molecular Life Sciences		2025	Chaoxiang, Lv, Jin, Guo, Rongbo, Luo, Yuanguo, Li, Bingshuo, qian, Xiaopan, Zou, Tiecheng, Wang, Bellei, Shen, Weiyang, Sun, Yuwei, Gao	No
Effects and mechanisms of trifolin on attenuating hypertension-induced vascular smooth muscle cell proliferation and collagen deposition in vivo and in vitro	Scientific Reports		2025	Aling, Shen, Meizhu, Wu, Zhi, Guo, Farman, Ali, Jinkong, Wu, Hong, Chen, Ying, Cheng, Dawei, Lian, Jun, Peng, Min, Yu, Keji, Chen	No
Circumferentially Aligned Electrospun Vascular Grafts Improves Its Vascular Regeneration and Remodeling in vivo	International Journal of Nanomedicine		2025	Man, Xiong, Lei, Yang, Xinfang, Liu, Sidong, Luo, Yeyang, Wang	No

Title	Journal	Link	Publication date	References	Top Paper
Ex Vivo Biosensor Strategy Reveals the Vascular Toxic Effects of Volatile Organic Compounds Derived from Indoor Renovation	Environment and Health		2025	Peihao, Yang, Wenting, Cheng, Mengruo, Wang, Mengqi, Wu, Qingping, Liu, Jianzhong, Zhang, Yaxian, Pang, Yujie, Niu, Jinglong, Tang, Rong, Zhang	No
MicroRNA-15a-5p mediates abdominal aortic aneurysm progression and serves as a potential diagnostic and prognostic circulating biomarker	Communications Medicine		2025	Greg, Winski, Ekaterina, Chernogubova, Albert, Busch, Suzanne M., Eken, Hong, Jin, Moritz, Lindquist Liljeqvist, Tooba, Khan, Alexandra, Bäcklund, Valentina, Paloschi, Joy, Roy, Rebecka, Hultgren, Christine, Brostjan, Gert J., de Borst, Joost P.G., Sluijter, Nadja, Sachs, Hans Henning, Eckstein, Reinier A., Boon, Joshua M., Spin, Philip S., Tsao, Folkert W., Asselbergs, Lars, Maegdefessel	No
The angiotensin II type 2 receptor attenuates aging-associated arterial stiffness in female mice	American Journal of Physiology-Heart and Circulatory Physiology	https://journals.physiology.org/doi/10.1152/ajpheart.00328.2025	2025	Casey G., Turner, Rachel, Kenney, Jennifer, Vorn, Seung Kyum, Kim, Greg, Martin, Lakshmi, Pulakat, Iris Z., Jaffe, Jennifer J., DuPont	No
Lysosomal zinc nanomodulation blocks macrophage pyroptosis for counteracting atherosclerosis progression	Sci. Adv	https://www.science.org	2025	Ruizhi, Hu, Junchang, Qin, Wei, Feng, Xinran, Song, Hui, Huang, Chen, Dai, Bo, Zhang, Yu, Chen	No
The effect of presence and location of microcalcifications on atherosclerotic plaque rupture: A tissue-engineering approach	Journal of the Mechanical Behavior of Biomedical Materials	https://linkinghub.elsevier.com/retrieve/pii/S1751616125002553	2025	Hanneke, Crielaard, Imke, Jansen, Kim, van der Heiden, Gert-Jan, Kremers, Frank J.H., Gijzen, Eric, Farrell, Ali C., Akyildiz	No
Mechanistic insight into plasticizer di-(2-ethylhexyl) phthalate as an environmental hazard for abdominal aortic aneurysm: Evidence from in vitro and in vivo studies	Ecotoxicology and Environmental Safety	https://linkinghub.elsevier.com/retrieve/pii/S0147651325010346	2025	Yicheng, Wang, Miaoyun, Qiu, Bixuan, Yue, Mingliang, Wang, Luoxing, Xia, Fengfeng, Li, Chaobo, Yang, Zhigao, Song, Yushan, Liao, Wei, Liu, Zhi, Zeng	No
Dual-Drug Nanomedicine Assembly with Synergistic Anti-Aneurysmal Effects via Inflammation Suppression and Extracellular Matrix Stabilization	Small		2024	Hong Lin, Zu, Pei Pei, Zhuang, Ying, Peng, Chao, Peng, Cheng, Peng, Zi Jia, Zhu, Ye, Yao, Jie, Yue, Qing Shan, Wang, Wen Hu, Zhou, Hai Yang, Wang	No
SLC44A2-mediated phenotypic switch of vascular smooth muscle cells contributes to aortic aneurysm	Journal of Clinical Investigation		2024	Tianyu, Song, Shuang, Zhao, Shanshan, Luo, Chuansheng, Chen, Xingeng, Liu, Xiaoqi, Wu, Zhongxu, Sun, Jiawei, Cao, Ziyu, Wang, Yineng, Wang, Bo, Yu, Zhiren, Zhang, Xiaolong, Du, Xiaoqiang, Li, Zhijian, Han, Hongshan, Chen, Feng, Chen, Liansheng, Wang, Hong, Wang, Kangyun, Sun, Yi, Han, Liping, Xie, Yong, Ji	No
Comparative Analysis of Micro-Computed Tomography and 3D Micro-Ultrasound for Measurement of the Mouse Aorta	Journal of Imaging		2024	Hajar A., Alenezi, Karen E., Hemmings, Parkavi, Kandavelu, Joanna, Koch-Paszkowski, Marc A., Bailey	No

Title	Journal	Link	Publication date	References	Top Paper
Novel formylpeptide receptor 1/2 agonist limits hypertension-induced cardiovascular damage	Cardiovascular Research		2024	Jaideep, Singh, Kristy L, Jackson, Haoyun, Fang, Audrey, Gumanti, Bethany, Claridge, Feng Shii, Tang, Helen, Kiriazis, Ekaterina, Salimova, Alex M, Parker, Cameron, Nowell, Owen L, Woodman, David W, Greening, Rebecca H, Ritchie, Geoffrey A, Head, Cheng Xue, Qin	No
In vitro and in vivo evaluation of biohybrid tissue-engineered vascular grafts with transformative 1H/19F MRI traceable scaffolds	Biomaterials		2024	Elena, Rama, Saurav Ranjan, Mohapatra, Yukiharu, Sugimura, Tomoyuki, Suzuki, Stefan, Siebert, Roman, Barmin, Juliane, Hermann, Jasmin, Baier, Anne, Rix, Teresa, Lemainque, Susanne, Koletnik, Asmaa Said, Elshafei, Roger Molto, Pallares, Seyed Mohammadali, Dadfar, René H., Tolba, Volkmar, Schulz, Joachim, Jankowski, Christian, Apel, Payam, Akhyari, Stefan, Jockenhoewel, Fabian, Kiessling	No
Acute vascular and cardiac effects of lenvatinib in mice	Cardio-Oncology	https://cardiooncologyjournal.biomedcentral.com/articles/10.1186/s40959-025-003...	2025	Dustin N., Krüger, Patrizia, Pannucci, Callan D., Wesley, Cedric H. G., Neutel, Wim, Martinet, Guido R. Y., De Meyer, Stephen J., Hill, Jeanette, Woolard, Constantijn, Franssen, Pieter-Jan, Guns	No
Dexrazoxane prevents vascular toxicity in doxorubicin-treated mice	Cardio-Oncology		2024	Dustin N., Krüger, Matthias, Bosman, Emeline M., Van Craenenbroeck, Guido R.Y., De Meyer, Constantijn, Franssen, Pieter Jan, Guns	No
UFMylation maintains YAP stability to promote vascular endothelial cell senescence	iScience		2025	Yanan, Liu, Min, Zuo, Aiwei, Wu, Zhaoxiang, Wang, Siting, Wang, Yongping, Bai, Junzhi, Zhou, Hu, Wang	No
Ultrasound Image Velocimetry for High Spatiotemporal Resolution Blood Flow Velocity Field Mapping in Mice	Ultrasound in Medicine and Biology		2025	Mingyi, Tang, Yu Qing, Zhou, Mark C., Blaser, David A., Steinman, Craig A., Simmons	No
Human amnion epithelial cell therapy reduces hypertension-induced vascular stiffening and cognitive impairment	Scientific Reports		2024	Quynh Nhu, Dinh, Cecilia, Lo, David Wong, Zhang, Vivian, Tran, Tayla, Gibson-Hughes, Ashleigh, Sheriff, Henry, Diep, Hyun Ah, Kim, Shenpeng R., Zhang, Liz J., Barreto-Arce, Maria, Jelinic, Antony, Vinh, Thiruma V., Arumugam, Siow Teng, Chan, Rebecca, Lim, Grant R., Drummond, Christopher G., Sobey, T. Michael, De Silva	No
Versican accumulation drives Nos2 induction and aortic disease in Marfan syndrome via Akt activation	EMBO Molecular Medicine		2024	María Jesús, Ruiz-Rodríguez, Jorge, Oller, Sara, Martínez-Martínez, Iván, Alarcón-Ruiz, Marta, Toral, Yilin, Sun, Ángel, Colmenar, María José, Méndez-Olivares, Dolores, López-Maderuelo, Christine B., Kern, J. Francisco, Nistal, Arturo, Evangelista, Gisela, Teixido-Tura, Miguel R., Campanero, Juan Miguel, Redondo	No

Title	Journal	Link	Publication date	References	Top Paper
Ginkgolide B Blocks Vascular Remodeling after Vascular Injury via Regulating Tgfβ1/Smad Signaling Pathway	Cardiovascular Therapeutics		2023	Quan, Wang, Shuai, Ni, Li, Ling, Siqi, Wang, Hanbin, Xie, Zhanhong, Ren	No
Identification and Validation of PTGS2 Gene as an Oxidative Stress-Related Biomarker for Arteriovenous Fistula Failure	Antioxidants		2024	Ke, Hu, Yi, Guo, Yuxuan, Li, Shunchang, Zhou, Chanjun, Lu, Chuanqi, Cai, Hongjun, Yang, Yiqing, Li, Weici, Wang	No
Establishment and pathophysiological evaluation of a novel model of acute compartment syndrome in rats	BMC Musculoskeletal Disorders		2024	Qi, Dong, Yubin, Long, Lin, Jin, Guanlin, Hou, Guoqiang, Li, Tao, Wang, Huiyang, Jia, Yingchao, Yin, Junfei, Guo, Huijie, Ma, Sujuan, Xu, Yingze, Zhang, Zhiyong, Hou	No
A Quantitative Method for the Evaluation of Deep Vein Thrombosis in a Murine Model Using Three-Dimensional Ultrasound Imaging	Biomedicines		2024	YanJun, Xie, Yi, Huang, Hugo C.S., Stevenson, Li, Yin, Kaijie, Zhang, Zain Husain, Islam, William Aaron, Marcum, Campbell, Johnston, Nicholas, Hoyt, Eric William, Kent, Bowen, Wang, John A., Hossack	No
Regnase-1 overexpression as a therapeutic approach of Marfan syndrome	Molecular Therapy Methods and Clinical Development		2024	Marie, Noormalal, Nesrin, Schmiedel, Tarik, Bozoglu, Andrea, Matzen, Susanne, Hille, Dima Ibrahim, Basha, Prithviraj Manohar, Vijaya Shetty, Anja, Wolf, Marcin, Zaradzki, Rawa, Arif, Thomas, Pühler, Georg, Lutter, Andreas H., Wagner, Christian, Kupatt, Derk, Frank, Norbert, Frey, Anca, Remes, Oliver J., Müller	No
Pterostilbene alleviates abdominal aortic aneurysm via inhibiting macrophage pyroptosis by activating the miR-146a-5p/TRAF6 axis	Food & Function		2024	Huoying, Cai, Lin, Huang, Mingshan, Wang, Ruiming, Liu, Jiacong, Qiu, Yuansen, Qin, Xi, Yao, Shenming, Wang, Chen, Yao, ZuoJun, Hu, Yu, Zhou	No
Micro-ultrasound based characterization of cerebrovasculature following focal ischemic stroke and upon short-term rehabilitation	Journal of Cerebral Blood Flow and Metabolism		2024	Johnson, Yu, Iilsung L., Joo, Paolo, Bazzigaluppi, Margaret M., Koletar, Emmanuel, Cherin, Andrew G., Stanis, James W.C., Graham, Christine, Demore, Bojana, Stefanovic	No
Positive Echocardiographic Association between Carotid Artery and Coronary Artery Diameter and Z-Score in a Mouse Model of Kawasaki Disease	Diagnostics		2024	Wen Ling, Shih, Tsung Ming, Yeh, Kuang Den, Chen, Steve, Leu, Ho Chang, Kuo	No
Ultrasound-guided periadventitial administration of rapamycin-fibrin glue attenuates neointimal hyperplasia in the rat carotid artery injury model	European Journal of Pharmaceutical Sciences		2024	Zhentao, Qiao, Fuhang, Wang, Dongjian, Han, Yuansong, Zhuang, Qingjiao, Jiang, Yi, Zhang, Miaomiao, Liu, Quanxu, An, Zhiwei, Wang, Deliang, Shen	No
Near-infrared-II photoacoustic imaging and photo-triggered synergistic treatment of thrombosis via fibrin-specific homopolymer nanoparticles	Nature Communications		2023	Jianwen, Song, Xiaoying, Kang, Lu, Wang, Dan, Ding, Deling, Kong, Wen, Li, Ji, Qi	No
Aortic calcification accelerates cardiac dysfunction via inducing apoptosis of cardiomyocytes	International Journal of Medical Sciences		2024	Nannan, Hao, Hui, Yong, Feifei, Zhang, Chang, Liu, Yulu, Qiu, Yumeng, Shi, Chunjian, Li, Fang, Wang	No

Title	Journal	Link	Publication date	References	Top Paper
Sonothrombolysis Using Microfluidically Produced Microbubbles in a Murine Model of Deep Vein Thrombosis	Annals of Biomedical Engineering	https://link.springer.com/10.1007/s10439-024-03609-7	2024	YanJun, Xie, Yi, Huang, Hugo C. S., Stevenson, Li, Yin, Kaijie, Zhang, Zain Husain, Islam, William Aaron, Marcum, Campbell, Johnston, Nicholas, Hoyt, Eric William, Kent, Bowen, Wang, John A., Hossack	No
Highly sensitive magnetic particle imaging of abdominal aortic aneurysm NETosis with anti-Ly6G iron oxide nanoparticles	Cell Death Discovery		2024	Heng, Wang, Ruijing, Zhang, Xiaohua, Jia, Siqi, Gao, Tingting, Gao, Keyi, Fan, Yaling, Li, Shule, Wang, Maolin, Qiao, Sheng, Yan, Hui, Hui, Honglin, Dong	No
The study of rapamycin nanofibrous membrane for preventing arteriovenous fistula stenosis	Materials and Design		2024	Dan, Rong, Taoxia, Wang, Xiaoli, Liu, Xiaolin, Pan, Lijie, Wang, Junfang, Zhang, Peizhao, Shi, Yaning, Qin, Guiying, Li, Lin, Jin, Zeyu, Xiao	No
In vivo noninvasive systemic myography of acute systemic vasoactivity in female pregnant mice	Nature Communications		2023	Kristie, Huda, Dylan J., Lawrence, Weylan, Thompson, Sarah H., Lindsey, Carolyn L., Bayer	No
CD73 deficiency does not aggravate angiotensin II-induced aortic inflammation in mice	Scientific Reports		2023	Timo, Massold, Fady, Ibrahim, Viola, Niemann, Bodo, Steckel, Katrin, Becker, Jürgen, Schrader, Johannes, Stegbauer, Sebastian, Temme, Maria, Grandoch, Ulrich, Flögel, Pascal, Bouvain	No
VEGF combined with DAPT promotes tissue regeneration and remodeling in vascular grafts	Regenerative Biomaterials		2023	Tao, Yang, Guangxu, Li, Xifeng, Li, Boyang, Wei, Hengxian, Su, Wenchao, Liu, Shenquan, Guo, Nan, Yang, Tao, Xu, Chuazhi, Duan	No
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, Heggermont, Emeline M, Van Craenenbroeck, Pieter-Jan, Guns	No
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

Title	Journal	Link	Publication date	References	Top Paper
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, Turrone, Francesco, Faia, 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, Yanzheng, 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
Gastrodin attenuates angiotensin II-induced vascular contraction and MLCK/p-MLC2 pathway activation	Pharmaceutical Biology		2023	Zhi, Guo, Xuan, Yang, Meizhu, Wu, Ailing, Shen, Jiapeng, Li, Xiuli, Zhang, Ying, Cheng, Qirong, Xie, Jun, Peng	No
Serp1B3 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
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
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, Ailing, Shen, Jun, Peng	No

Title	Journal	Link	Publication date	References	Top Paper
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, Pratinip, 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