



## Johannes Antonius Jacobus Moonen

Instructor, Pediatrics - Cardiology

### Bio

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#### ACADEMIC APPOINTMENTS

- Instructor, Pediatrics - Cardiology
- Member, Maternal & Child Health Research Institute (MCHRI)

### Publications

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#### PUBLICATIONS

- **Endogenous Retroviral Elements Generate Pathologic Neutrophils in Pulmonary Arterial Hypertension.** *American journal of respiratory and critical care medicine*  
Taylor, S., Isobe, S., Cao, A., Contrepois, K., Benayoun, B. A., Jiang, L., Wang, L., Melemenidis, S., Ozen, M. O., Otsuki, S., Shinohara, T., Sweatt, A. J., Kaplan, et al  
2022
- **Monocyte released HERV-K dUTPase engages TLR4 and MCAM causing endothelial mesenchymal transition.** *JCI insight*  
Otsuki, S., Saito, T., Taylor, S., Li, D., Moonen, J., Marciano, D. P., Harper, R. L., Cao, A., Wang, L., Ariza, M. E., Rabinovitch, M.  
2021
- **ALDH1A3 Coordinates Metabolism with Gene Regulation in Pulmonary Arterial Hypertension.** *Circulation*  
Li, D., Shao, N., Moonen, J., Zhao, Z., Shi, M., Otsuki, S., Wang, L., Nguyen, T., Yan, E., Marciano, D. P., Contrepois, K., Li, C. G., Wu, et al  
2021
- **Intrinsic Endocardial Defects Contribute to Hypoplastic Left Heart Syndrome.** *Cell stem cell*  
Miao, Y., Tian, L., Martin, M., Paige, S. L., Galdos, F. X., Li, J., Klein, A., Zhang, H., Ma, N., Wei, Y., Stewart, M., Lee, S., Moonen, et al  
2020
- **Cellular senescence impairs the reversibility of pulmonary arterial hypertension.** *Science translational medicine*  
van der Feen, D. E., Bossers, G. P., Hagdorn, Q. A., Moonen, J., Kurakula, K., Szulcek, R., Chappell, J., Vallania, F., Donato, M., Kok, K., Kohli, J. S., Petersen, A. H., van Leusden, et al  
2020; 12 (554)
- **Clinical trial in a dish using iPSCs shows lovastatin improves endothelial dysfunction and cellular cross-talk in LMNA cardiomyopathy.** *Science translational medicine*  
Sayed, N., Liu, C., Ameen, M., Himmati, F., Zhang, J. Z., Khanamiri, S., Moonen, J., Wnorowski, A., Cheng, L., Rhee, J., Gaddam, S., Wang, K. C., Sallam, et al  
2020; 12 (554)
- **PPAR $\alpha$ -p53-Mediated Vasculoregenerative Program to Reverse Pulmonary Hypertension.** *Circulation research*  
Hennigs, J. K., Cao, A. n., Li, C. G., Shi, M. n., Mienert, J. n., Miyagawa, K. n., Körbelin, J. n., Marciano, D. P., Chen, P. I., Roughley, M. n., Elliott, M. V., Harper, R. L., Bill, et al  
2020

- **MicroRNA-374b induces endothelial-to-mesenchymal transition and early lesion formation through the inhibition of MAPK7 signaling** *JOURNAL OF PATHOLOGY*  
Vanchin, B., Offringa, E., Friedrich, J., Brinker, M. L., Kiers, B., Pereira, A. C., Harmsen, M. C., Moonen, J. J., Krenning, G.  
2019; 247 (4): 456-70
- **KLF and AP1 Having Opposing Roles in Regulating Chromatin Accessibility and the Endothelial Enhancer Landscape Under Laminar vs. Disturbed Shear Stress**  
Moonen, J., Chappell, J., Dan, L., Shi, M., Cao, A., Taylor, S., Zhao, Z., Wang, L., Snyder, M. P., Rabinovitch, M.  
LIPPINCOTT WILLIAMS & WILKINS.2018
- **Loss of Reversibility in Flow-Induced Pulmonary Arterial Hypertension is Associated With a Senescent Vascular Phenotype and Can Be Rescued by Targeted Senolysis**  
van der Feen, D., Jorna, L. M., Moonen, J., Chappell, J., Vallania, F., Donato, M., Demaria, M., de Boer, R. A., Rabinovitch, M., Berger, R. M., Bartelds, B.  
LIPPINCOTT WILLIAMS & WILKINS.2018
- **Upregulation of HERV-K is Linked to Immunity and Inflammation in Pulmonary Arterial Hypertension.** *Circulation*  
Saito, T. n., Miyagawa, K. n., Chen, S. Y., Tamosiuniene, R. n., Wang, L. n., Sharp, O. n., Samayoa, E. n., Harada, D. n., Moonen, J. A., Cao, A. n., Chen, P. I., Hennigs, J. K., Gu, et al  
2017
- **In Pulmonary Arterial Hypertension, Reduced BMPR2 Promotes Endothelial-to-Mesenchymal Transition via HMGA1 and Its Target Slug** *CIRCULATION*  
Hopper, R. K., Moonen, J. A., Diebold, I., Cao, A., Rhodes, C. J., Tojais, N. F., Hennigs, J. K., Gu, M., Wang, L., Rabinovitch, M.  
2016; 133 (18): 1783-?
- **FGF2 inhibits endothelial-mesenchymal transition through microRNA-20a-mediated repression of canonical TGF-beta signaling** *JOURNAL OF CELL SCIENCE*  
Correia, A. C., Moonen, J. A., Brinker, M. G., Krenning, G.  
2016; 129 (3): 569-579
- **Endothelial Plasticity: Shifting Phenotypes through Force Feedback.** *Stem cells international*  
Krenning, G., Barauna, V. G., Krieger, J. E., Harmsen, M. C., Moonen, J. A.  
2016; 2016: 9762959-?
- **Endothelial-to-mesenchymal transition contributes to fibro-proliferative vascular disease and is modulated by fluid shear stress** *CARDIOVASCULAR RESEARCH*  
Moonen, J. A., Lee, E. S., Schmidt, M., Maleszewska, M., Koerts, J. A., Brouwer, L. A., Van Kooten, T. G., van Luyn, M. J., Zeebregts, C. J., Krenning, G., Harmsen, M. C.  
2015; 108 (3): 377-386
- **Erk5 inhibits endothelial migration via KLF2-dependent down-regulation of PAK1** *CARDIOVASCULAR RESEARCH*  
Komaravolu, R. K., Adam, C., Moonen, J. A., Harmsen, M. C., Goebeler, M., Schmidt, M.  
2015; 105 (1): 86-95
- **The flow dependency of Tie2 expression in endotoxemia** *INTENSIVE CARE MEDICINE*  
Kurniati, N. F., Jongman, R. M., vom Hagen, F., Spokes, K. C., Moser, J., Regan, E. R., Krenning, G., Moonen, J. A., Harmsen, M. C., Struys, M. M., Hammes, H., Zijlstra, J. G., Aird, et al  
2013; 39 (7): 1262-1271
- **IL-1 $\beta$  and TGF $\beta$ 2 synergistically induce endothelial to mesenchymal transition in an NF $\kappa$ B-dependent manner.** *Immunobiology*  
Maleszewska, M., Moonen, J. A., Huijkman, N., van de Sluis, B., Krenning, G., Harmsen, M. C.  
2013; 218 (4): 443-454
- **Cellular plasticity: the good, the bad, and the ugly? Microenvironmental influences on progenitor cell therapy** *CANADIAN JOURNAL OF PHYSIOLOGY AND PHARMACOLOGY*  
Moonen, J. A., Harmsen, M. C., Krenning, G.  
2012; 90 (3): 275-285
- **Endothelial progenitor cells give rise to pro-angiogenic smooth muscle-like progeny** *CARDIOVASCULAR RESEARCH*  
Moonen, J. A., Krenning, G., Brinker, M. G., Koerts, J. A., van Luyn, M. J., Harmsen, M. C.  
2010; 86 (3): 506-515

- **Pleiotropism of Adiponectin Inflammation, Neovascularization, and Fibrosis** *CIRCULATION RESEARCH*  
Krenning, G., Moonen, J. A., Harmsen, M. C.  
2009; 104 (9): 1029-1031
- **Generating New Blood Flow: Integrating Developmental Biology and Tissue Engineering** *TRENDS IN CARDIOVASCULAR MEDICINE*  
Krenning, G., Moonen, J. A., van Luyn, M. J., Harmsen, M. C.  
2008; 18 (8): 312-323
- **Vascular smooth muscle cells for use in vascular tissue engineering obtained by endothelial-to-mesenchymal transdifferentiation (EnMT) on collagen matrices** *BIOMATERIALS*  
Krenning, G., Moonen, J. A., van Luyn, M. J., Harmsen, M. C.  
2008; 29 (27): 3703-3711
- **Reduced number and impaired function of circulating progenitor cells in patients with systemic lupus erythematosus** *ARTHRITIS RESEARCH & THERAPY*  
Moonen, J. R., de Leeuw, K., van Seijen, X. J., Kallenberg, C. G., van Luyn, M. J., Bijl, M., Harmsen, M. C.  
2007; 9 (4)