

# Stanford

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## Markus Ramste

Postdoctoral Scholar, Cardiovascular Medicine

### Bio

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#### PROFESSIONAL EDUCATION

- Doctor of Philosophy, University Of Helsinki (2019)
- Doctor of Medicine, Ludwig Maximilian Universitat Munchen (2016)
- Doctor of Philosophy (PhD), University of Helsinki , Medicine (2019)
- Doctor of Medicine (MD), Ludwig-Maximilians-Universität München , Medicine (2016)

#### STANFORD ADVISORS

- Thomas Quertermous, Postdoctoral Faculty Sponsor
- Thomas Quertermous, Postdoctoral Research Mentor

### Publications

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#### PUBLICATIONS

- **CYP2C19 loss-of-function alleles and use of omeprazole or esomeprazole increase the risk of cardiovascular outcomes in patients using clopidogrel.** *Clinical and translational science*  
Ramste, M., Ritvos, M., Hayrynen, S., Kiiski, J. I., Niemi, M., Sinisalo, J.  
2023
- **Genetic predictors of lifelong medication-use patterns in cardiometabolic diseases.** *Nature medicine*  
Kiiskinen, T., Helkkula, P., Krebs, K., Karjalainen, J., Saarentaus, E., Mars, N., Lehisto, A., Zhou, W., Cordioli, M., Jukarainen, S., Ramo, J. T., Mehtonen, J., Veerapen, et al  
2023
- **The SARS-CoV-2 receptor ACE2 is expressed in mouse pericytes but not endothelial cells: Implications for COVID-19 vascular research.** *Stem cell reports*  
Muhl, L., He, L., Sun, Y., Andaloussi Mae, M., Pietila, R., Liu, J., Genove, G., Zhang, L., Xie, Y., Leptidis, S., Mocci, G., Stritt, S., Osman, et al  
2022
- **Cardiac-specific VEGFB overexpression reduces lipoprotein lipase activity and improves insulin action in rat heart** *AMERICAN JOURNAL OF PHYSIOLOGY-ENDOCRINOLOGY AND METABOLISM*  
Shang, R., Lal, N., Lee, C., Zhai, Y., Puri, K., Seira, O., Boushel, R. C., Sultan, I., Rasanen, M., Alitalo, K., Hussein, B., Rodrigues, B.  
2021; 321 (6): E753-E765
- **VEGF-B Promotes Endocardium-Derived Coronary Vessel Development and Cardiac Regeneration** *CIRCULATION*  
Rasanen, M., Sultan, I., Paech, J., Hemanthakumar, K., Yu, W., He, L., Tang, J., Sun, Y., Hlushchuk, R., Huan, X., Armstrong, E., Khoma, O., Mervaala, et al  
2021; 143 (1): 65-77
- **Susceptibility to Cardiac Arrhythmias and Sympathetic Nerve Growth in VEGF-B Overexpressing Myocardium** *MOLECULAR THERAPY*  
Lahteenvuo, J., Hatinen, O., Kuivanen, A., Huusko, J., Paananen, J., Lahteenvuo, M., Nurro, J., Hedman, M., Hartikainen, J., Laham-Karam, N., Mäkinen, P., Rasanen, M., Alitalo, et al

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2020; 28 (7): 1731-1740

- **Systemic Blockade of ACVR2B Ligands Protects Myocardium from Acute Ischemia-Reperfusion Injury** *MOLECULAR THERAPY*  
Magga, J., Vainio, L., Kilpio, T., Hulmi, J. J., Taponen, S., Lin, R., Rasanen, M., Szabo, Z., Gao, E., Rahtu-Korpela, L., Alakoski, T., Ulvila, J., Laitinen, et al  
2019; 27 (3): 600-610
- **Single-cell RNA sequencing of mouse brain and lung vascular and vessel-associated cell types** *SCIENTIFIC DATA*  
He, L., Vanlandewijck, M., Mae, M., Andrae, J., Ando, K., Del Gaudio, F., Nahar, K., Lebouvier, T., Lavina, B., Gouveia, L., Sun, Y., Raschperger, E., Segerstolpe, et al  
2018; 5: 180160
- **Frequency, Reasons, and Impact of Premature Ticagrelor Discontinuation in Patients Undergoing Coronary Revascularization in Routine Clinical Practice Results From the Bern Percutaneous Coronary Intervention Registry** *CIRCULATION-CARDIOVASCULAR INTERVENTIONS*  
Zanchin, T., Temperli, F., Karagiannis, A., Zanchin, C., Rasanen, M., Koskinen, K. C., Stortecky, S., Hunziker, L., Praz, F., Blochlinger, S., Moro, C., Moschovitis, A., Seiler, et al  
2018; 11 (5): e006132
- **Prevention of chemotherapy-induced cachexia by ACVR2B ligand blocking has different effects on heart and skeletal muscle** *JOURNAL OF CACHEXIA SARCOPENIA AND MUSCLE*  
Hulmi, J. J., Nissinen, T. A., Rasanen, M., Degerman, J., Lautaoja, J. H., Hemanthakumar, K., Backman, J. T., Ritvos, O., Silvennoinen, M., Kivela, R.  
2018; 9 (2): 417-432
- **A molecular atlas of cell types and zonation in the brain vasculature** *NATURE*  
Vanlandewijck, M., He, L., Mae, M., Andrae, J., Ando, K., Del Gaudio, F., Nahar, K., Lebouvier, T., Lavina, B., Gouveia, L., Sun, Y., Raschperger, E., Rasanen, et al  
2018; 554 (7693): 475-+
- **VEGF-B gene therapy inhibits doxorubicin-induced cardiotoxicity by endothelial protection** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*  
Rasanen, M., Degerman, J., Nissinen, T. A., Miinalainen, I., Kerkela, R., Siltanen, A., Backman, J. T., Mervaala, E., Hulmi, J. J., Kivela, R., Alitalo, K.  
2016; 113 (46): 13144-13149
- **Systemic blockade of ACVR2B ligands prevents chemotherapy-induced muscle wasting by restoring muscle protein synthesis without affecting oxidative capacity or atrogenes** *SCIENTIFIC REPORTS*  
Nissinen, T. A., Degerman, J., Rasanen, M., Poikonen, A. R., Koskinen, S., Mervaala, E., Pasternack, A., Ritvos, O., Kivela, R., Hulmi, J. J.  
2016; 6: 32695
- **Endothelial Bmx tyrosine kinase activity is essential for myocardial hypertrophy and remodeling** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*  
Holopainen, T., Rasanen, M., Anisimov, A., Tuomainen, T., Zheng, W., Tvorogov, D., Hulmi, J. J., Andersson, L. C., Cenni, B., Tavi, P., Mervaala, E., Kivela, R., Alitalo, et al  
2015; 112 (42): 13063-13068
- **VEGF-B-induced vascular growth leads to metabolic reprogramming and ischemia resistance in the heart** *EMBO MOLECULAR MEDICINE*  
Kivela, R., Bry, M., Robciuc, M. R., Rasanen, M., Taavitsainen, M., Silvola, J. U., Saraste, A., Hulmi, J. J., Anisimov, A., Mayranpaa, M. I., Lindeman, J. H., Eklund, L., Hellberg, et al  
2014; 6 (3): 307-321