

Altered calcium handling in cardiomyocytes from arginine-glycine amidinotransferase-knockout mice is rescued by creatine

Laasmaa, Martin; Branovets, Jelena; Barsunova, Karina; Karro, Niina; Lygate, Craig A.; Birkedal Nielsen, Rikke; Vendelin, Marko American journal of physiology-heart and circulatory physiology 2020 / p. H805-H825 <https://doi.org/10.1152/ajpheart.00300.2020>
[Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Analysis of ADP compartmentation in cardiomyocytes and its role in protection against mitochondrial permeability transition pore opening = ADP kompartmentatsiooni analüüs südamelihaskududes ja selle roll mitokondriaalse suure läbitavusega poori avanemise eest kaitsmisel

Karro, Niina 2015 <https://digi.lib.ttu.ee/ii/?3423> https://www.ester.ee/record=b4500337*est

Analysis of molecular movement reveals latticelike obstructions to diffusion in heart muscle cells

Illaste, Ardo; Laasmaa, Martin; Peterson, Pearu; Vendelin, Marko Biophysical journal 2012 / p. 739-748 : ill <https://www.sciencedirect.com/science/article/pii/S0006349512000859>

Analysis of molecular movements in cardiac myocytes = Molekulaarsete liikumiste analüüs südamelihaskududes

Illaste, Ardo 2012 <https://digi.lib.ttu.ee/ii/?648>

Biofüüsikud loodavad südamerakkude segadusse ajamisega haigusi ennetada

Alvela, Ain novaator.err.ee 2023 [Biofüüsikud loodavad südamerakkude segadusse ajamisega haigusi ennetada](#)

Cardiac volume related energy consumption

Min, Mart Estonian Science Foundation 2010-2011 2011 / p. 17-18 : phot

Compartmentalization in cardiomyocytes modulates creatine kinase and adenylate kinase activities

Birkedal, Rikke; Branovets, Jelena; Vendelin, Marko FEBS letters 2024 / p. 2623-2640 <https://doi.org/10.1002/1873-3468.14994>
[Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Compartmentalization in cardiomyocytes modulates kinase activities

Birkedal, Rikke; Branovets, Jelena; Jaska, Lucia; Shikha, Divya; Bernasconi, Romain; Vendelin, Marko FEBS Open Bio 2024 / p. 34 <https://doi.org/10.1002/2211-5463.13836>

Cutting-edge imaging unravels sex-specific structural variations in the heart

Vendelin, Marko; Marko Vendelin, Laasmaa, Martin Medical Xpress 2024 <https://medicalxpress.com/news/2024-06-edge-imaging-unravels-sex-specific.html> <https://physoc.onlinelibrary.wiley.com/doi/10.1113/JP284515>

Cutting-edge imaging unravels sex-specific structural variations in the heart

Vendelin, Marko eurekaalert.org 2024 <https://www.eurekaalert.org/news-releases/1047671> <https://doi.org/10.1113/JP284515>

Different kinetics of the regulation of respiration in permeabilized cardiomyocytes and in HL-1 cardiac cells : importance of cell structure/organization for respiration regulation

Anmann, Tiia; Guzun, Rita; Beraud, Nathalie; Pelloux, Sophie; Kuznetsov, Andrey V.; Kogerman, Lembi; Käämbre, Tuuli; Sikk, Peeter; Paju, Kalju; Peet, Nadežda; Seppet, Enn; Ojeda, Carlos; Tournier, Yves; Saks, Valdur Biochimica et biophysica acta 2006 / p. 1597-1606 : ill <https://www.sciencedirect.com/science/article/pii/S0005272806003070>

Formation of highly organized intracellular structure and energy metabolism in cardiac muscle cells during postnatal development of rat heart

Anmann, Tiia; Varikmaa, Minna; Timohhina, Natalja; Tepp, Kersti; Shevchuk, Igor; Chekulayev, Vladimir; Saks, Valdur; Kaambre, Tuuli Biochimica et biophysica acta - Bioenergetics 2014 / p. 1350-1361 : ill <https://doi.org/10.1016/j.bbabi.2014.03.015> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Heterogeneity of diffusion restrictions in cardiomyocytes = Difusioonitakistuste heterogeensus südamelihaskududes

Jepihhina, Natalja 2017 <https://digi.lib.ttu.ee/ii/?8085> https://www.ester.ee/record=b4681847*est

The influence of alternative energy transfer systems on respiration in creatine-deficient mouse cardiomyocytes

Branovets, Jelena; Jugai, Svetlana; Vendelin, Marko; Birkedal Nielsen, Rikke Biophysical journal 2016 / p. 474a-475a <https://doi.org/10.1016/j.bpj.2015.11.2538>

Integrated and organized cellular bioenergetic systems in heart and brain

Anmann, Tiia 2007 http://www.ester.ee/record=b2281020*est

IOCBIO Sparks detection and analysis software

Laasmaa, Martin; Karro, Niina; Birkedal Nielsen, Rikke; Vendelin, Marko PeerJ 2019 / art. e6652, 28 p. : ill <https://doi.org/10.7717/peerj.6652> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

IOCBIO Sparks detection and analysis software

Laasmaa, Martin; Karro, Niina; Birkedal Nielsen, Rikke; Vendelin, Marko Biophysical journal 2019 / art. 1900-Pos ; p. 384a
<https://doi.org/10.1016/j.bpj.2018.11.2080>

Kaasaaegne mikroskoopia paljastab südame soopõhised struktuurierisused

Vendelin, Marko; Laasmaa, Martin novaator.err.ee 2024 [Kaasaaegne mikroskoopia paljastab südame soopõhised struktuurierisused](#)

Kuidas saab südamelihase energiat? CENS-i südamelabor. Energia ülekanne südamerakkudes

Engelbrecht, Jüri; Vendelin, Marko Keeruka maailma võlu 2015 / lk. 71-74 : ill https://www.ester.ee/record=b4488344*est

Mechanoenergetics of a single cardiomyocyte = Ühe südameraku mehaanoenergeetika

Kalda, Mari 2015 https://www.ester.ee/record=b4525654*est

Metabolic compartmentation in rainbow trout cardiomyocytes : coupling of hexokinase but not creatine kinase to mitochondrial respiration

Karro, Niina; Sepp, Mervi; Jugai, Svetlana; Laasmaa, Martin; Vendelin, Marko; Birkedal Nielsen, Rikke Journal of comparative physiology B 2017 / p. 103-116 : ill <https://doi.org/10.1007/s00360-016-1025-x> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Mitochondria–cytoskeleton interaction : distribution of β -tubulins in cardiomyocytes and HL-1 cells

Guzun, Rita; Karu-Varikmaa, Minna; Gonzalez-Granillo, Marcela; Kuznetsov, Andrey V.; Michel, Laurianne; Cottet-Rousselle, Cecile; Saaremäe, Merle; Käämbre, Tuuli; Metsis, Madis; Grimm, Michael; Auffray, Charles; Saks, Valdur Biochimica et biophysica acta 2011 / p. 458-469 : ill <https://core.ac.uk/download/pdf/82551314.pdf>

Molecular system bioenergetics of cardiac cells : quantitative analysis of structure-function relationship

Tepp, Kersti 2011

Multi-nodal nano-actuator pacemaker for energy-efficient stimulation of cardiomyocytes

Lu, Pengfei; Veletic, Mladen; Laasmaa, Martin; Vendelin, Marko Nano Communication Networks 2019 / art. 100270, 11 p. : ill <https://doi.org/10.1016/j.nancom.2019.100270> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Number of open mitochondrial voltage-dependent anion channels and intracellular diffusion coefficient in heart muscle

Simson, Päivo; Jepihhina, Natalja; Laasmaa, Martin; Branovets, Jelena; Peterson, Pearu; Birkedal Nielsen, Rikke; Vendelin, Marko Biophysical journal 2016 / p. 475a <https://doi.org/10.1016/j.bpj.2015.11.2540>

Ontogeny of cardiomyocytes : ultrastructure optimization to meet the demand for tight communication in excitation–contraction coupling and energy transfer

Birkedal Nielsen, Rikke; Laasmaa, Martin; Branovets, Jelena; Vendelin, Marko Philosophical Transactions of the Royal Society B : Biological Sciences 2022 / art. 20210321 <https://doi.org/10.1098/rstb.2021.0321> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Prolonged β -adrenergic stimulation disperses ryanodine receptor clusters in cardiomyocytes: Implications for heart failure

Shen, Xin; van den Brink, Jonas; Bergan-Dahl, Anna; Kolstad, Terje; Norden, Einar; Hou, Yufeng; Laasmaa, Martin; Quick, Ann; Espe, Emil; Sjaastad, Ivar Journal of molecular and cellular cardiology 2022 / p. S151 <https://doi.org/10.1016/j.yjmcc.2022.08.297>

Prolonged β -adrenergic stimulation disperses ryanodine receptor clusters in cardiomyocytes and has implications for heart failure

Shen, Xin; Brink, J.W.van den; Bergan-Dahl, Anna; Kolstad, Terje R.; Norden, Einar S.; Hou, Yufeng; Laasmaa, Martin; Aguilar-Sanchez, Yuriana; Quick, Ann P.; Espe, Emil K. S. eLife 2022 / art. e77725 <https://doi.org/10.7554/eLife.77725>

Regulation of mitochondrial respiration by different tubulin isoforms in vivo

Karu-Varikmaa, Minna; Saaremäe, Merle; Sikk, Peeter; Käämbre, Tuuli; Metsis, Madis; Saks, Valdur Biophysical journal 2011 / p. 459a [https://www.cell.com/biophysj/fulltext/S0006-3495\(10\)04205-0](https://www.cell.com/biophysj/fulltext/S0006-3495(10)04205-0)

Restricted ADP movement in cardiomyocytes : cytosolic diffusion obstacles are complemented with a small number of open mitochondrial voltage-dependent anion channels

Simson, Päivo; Jepihhina, Natalja; Laasmaa, Martin; Peterson, Pearu; Birkedal Nielsen, Rikke; Vendelin, Marko Journal of molecular and cellular cardiology 2016 / p. 197-203 : ill <https://doi.org/10.1016/j.yjmcc.2016.04.012> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Revealing aspects of cardiac function from fluorescence and electrophysiological recordings = Südamerallituse uuringud fluorestsentsi ja elektrofüsioloogiliste mõõtmiste abil

Laasmaa, Martin 2016 http://www.ester.ee/record=b4632325*est <https://digikogu.taltech.ee/et/Item/5e9f5bd2-8295-4f7e-8f6d-65d0b8002a74>

Structural and functional studies of mitochondrial respiration regulation in muscle cells = Lihaseakkude mitokondriaalse

hingamise regulatsiooni struktuursed ja funktsionaalsed uuringud

Varikmaa, Minna; Saks, Valdur; **Metsis, Madis** 2013 https://www.ester.ee/record=b3035829*est

Südame täitumismahuga seostuv energiatarve : projekt ETF212 "Südame täitumismahuga seostuv energiatarve", 2007-2009

Min, Mart Eesti Teadusfondi aastaraamat 2010-2011 2011 / lk. 17-18 : fot

Süstemaatiline lähenemine aitab mõista ka inimese südant : [heategevusfondi Wellcome Trust toetusest TTÜ Küberneetika Instituudi vanemteaduri Marko Vendelini juhitud südamelihaste energiategevust uurivale teadlaste rühmale]

Kändler, Tiit Eesti Päevaleht 2007 / lk. 24 <https://epl.delfi.ee/artikkel/51090822/susteenne-lahenemine-aitab-moista-ka-inimese-sudant>

The location of energetic compartments affects energetic communication in cardiomyocytes

Birkedal, Rikke; **Laasmaa, Martin**; **Vendelin, Marko** Frontiers in physiology 2014 / art. 376, 9 p.: ill

<https://doi.org/10.3389/fphys.2014.00376> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Using action potential clamp data to determine the calcium fluxes and contributions in excitation-contraction coupling in vivo in cardiomyocytes

Laasmaa, Martin; **Vendelin, Marko**; **Birkedal Nielsen, Rikke** Biophysical journal 2016 / p. 100a-101a

<http://dx.doi.org/10.1016/j.bpj.2015.11.600>

Современная микроскопия выявила гендерные структурные различия в сердце

Vendelin, Marko; **Laasmaa, Martin** nauka.err.ee 2024 [Современная микроскопия выявила гендерные структурные различия в сердце](#)