

The absence of active creatine kinase system influences cardiac calcium handling

Laasmaa, Martin; Branovets, Jelena; Karro, Niina; Birkedal Nielsen, Rikke; Vendelin, Marko Biophysical journal 2019 / Poster 484 ; p. 96a <https://doi.org/10.1016/j.bpj.2018.11.558>

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

Cardiac expression and location of hexokinase changes in a mouse model of pure creatine deficiency

Branovets, Jelena; Karro, Niina; Barsunova, Karina; Laasmaa, Martin; Lygate, Craig A.; Vendelin, Marko; Birkedal Nielsen, Rikke American journal of physiology-heart and circulatory physiology 2021 / p. H613-H629 <https://doi.org/10.1152/ajpheart.00188.2020>
[Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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](#)

Compromised creatine kinase energy transfer affects cardiac excitation-contraction coupling

Branovets, Jelena; Kalda, Mari; Laasmaa, Martin; Stolova, Jekaterina; Shen, Xin; Grahv, Cärolin; Hendrikson, Eliise; Louch, William Edward; Birkedal, Rikke; Vendelin, Marko Acta Physiologica 2022 / p. 594-595
<https://onlinelibrary.wiley.com/doi/epdf/10.1111/apha.13878>

Coupled creatine kinase systems in cardiac cells and synaptosomes : a comparative kinetic study

Anmann, Tiia; Monge, Claire; Beraud, Nathalie; Pelloux, Sophie; Tourneur, Yves; Saks, Valdur Biophysical Society meeting abstracts : Biophysical journal supplement 2007 / p. 621A
https://www.researchgate.net/publication/296111529_Coupled_creatine_kinase_systems_in_cardiac_cells_and_synaptosomes_A_comparative_kinetic_study

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; Tourneur, Yves; Saks, Valdur Biochimica et biophysica acta 2006 / p. 1597-1606 : ill <https://www.sciencedirect.com/science/article/pii/S0005272806003070>

Energy metabolic plasticity of colorectal cancer cells as a determinant of tumor growth and metastasis

Reinsalu, Leenu; Puurand, Marju; Tšekulajev, Vladimir; Miller, Sten; Ševtšuk, Igor; Tepp, Kersti; Rebane-Klemm, Egle; Timohhina, Natalja; Terasmaa, Anton; Käämbre, Tuuli Frontiers in Oncology 2021 / Art. nr. 698951 <https://doi.org/10.3389/fonc.2021.698951> [Journal metrics at Journal](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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>

Interplay between creatine kinase and adenylate kinase networks in health and disease = Kreatiinkinaasi ja adenülaatkinaasi energiaülekande võrgustike vaheline koosmõju normis ja patoloogias

Klepinin, Aleksandr 2018 <https://digi.lib.ttu.ee/ii/?9963> https://www.ester.ee/record=b5141460*est

Investigation of interactions between mitochondrial creatine kinase and ATP/ADP channel

Karu-Varikmaa, Minna; Metsis, Madis; Guzun, Rita; Käämbre, Tuuli; Grichine, Alexei; Saks, Valdur FEBS journal 2011 / p. 374-375

Marker enzyme activities in hindleg from creatine-deficient AGAT and GAMT KO mice - differences between models, muscles, and sexes

Barsunova, Karina; Vendelin, Marko; Birkedal Nielsen, Rikke Scientific reports 2020 / Art. 7956, 9 p
<https://doi.org/10.1038/s41598-020-64740-8> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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 Scopus](#) [Article at Scopus](#)

[metrics at WOS](#) [Article at WOS](#)

Modeling of the coupled enzyme systems : model of mitochondrial creatine kinase (miCK) and adenine nucleotide translocase (ANT) coupling

Vendelin, Marko; Anmann, Tiia; Käämbre, Tuuli; Sikk, Peeter; Saks, Valdur Biophysical Society meeting abstracts : Biophysical journal supplement 2007 / p. 660A

Molecular dynamics simulations of creatine kinase and adenine nucleotide translocase in mitochondrial membrane patch

Karo, Jaanus; Peterson, Pearu; Vendelin, Marko The journal of biological chemistry 2012 / p. 7467-7476 : ill

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3293576/>

Novel method for investigation of interactions between mitochondrial creatine kinase and adenine nucleotide translocase

Varikmaa, Minna; Metsis, Madis; Guzun, Rita; Käämbre, Tuuli; Grichine, Alexei; Saks, Valdur Biophysical journal 2010 / Iss. 3, Suppl. 1, p. 735a

https://www.researchgate.net/publication/247278037_Novel_Method_for_Investigation_of_Interactions_between_Mitochondrial_Creatine_Kinase_and_Adenine_Nucleotide_Translocase

Rat and mouse cardiomyocytes show subtle differences in creatine kinase expression and compartmentalization

Branovets, Jelena; Soodla, K  rol; Vendelin, Marko; Birkedal Nielsen, Rikke PLoS ONE 2023 / art. e0294718

<https://doi.org/10.1371/journal.pone.0294718> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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](#)

Unchanged mitochondrial organization and compartmentation of high-energy phosphates in creatine-deficient GAMT(-/-) mouse hearts

Branovets, Jelena; Sepp, Mervi; Kotlyarova, Svetlana; J  pihhina, Natalja; Sokolova, Niina; Aksentijevic, Dunja; Neubauer, Stefan; Lygate, Craig A.; Vendelin, Marko; Birkedal Nielsen, Rikke American journal of physiology - heart and circulatory physiology 2013 / p. H506-H520 : ill <https://doi.org/10.1152/ajpheart.00919.2012> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)