

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>
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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

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Cardiomyocytes from female compared to male mice have larger ryanodine receptor clusters and higher calcium spark frequency

Laasmaa, Martin; Branovets, Jelena; Stolova, Jekaterina; Shen, Xin; Rätsepso, Triinu; Balodis, Mihkel Jaan; Grahv, Cärolin; Hendrikson, Eliise; Louch, William Edward; Birkedal Nielsen, Rikke; Vendelin, Marko Journal of Physiology 2023 / p. 4033-4052 : ill <https://doi.org/10.1113/JP284515> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Compromised creatine kinase energy transfer leads to adaptations in cardiac excitation-contraction coupling that are distinct from changes associated with heart failure : [manuscript]

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Energetics and calcium handling in hearts from creatine-deficient mice = Energeetika ja kaltsiumi käitlemine kreatiini puudulike hiirte südames

Branovets, Jelena 2022 <https://doi.org/10.23658/taltech.56/2022> <https://digikogu.taltech.ee/et/item/36325289-f635-4816-bddc-2246206e6dc1> https://www.ester.ee/record=b5511927*est

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

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Intracellular compartmentalization shapes energy transfer – differences between adenylate kinase activities in homogenate and permeabilized cardiomyocytes : [manuscript]

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IOCBIO Kinetics : an open-source software solution for analysis of data traces

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IOCBIO Sparks detection and analysis software

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Number of open mitochondrial voltage-dependent anion channels and intracellular diffusion coefficient in heart muscle
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Respiration of permeabilized cardiomyocytes from mice: no sex differences, but substrate-dependent changes in the apparent ADP-affinity

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

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

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