

### **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 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>

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

**Branovets, Jelena; Kalda, Mari; Laasmaa, Martin; Stolova, Jekaterina; Shen, Xin; Balodis, Mihkel Jaan; Grahv, Cärolin; Hendrikson, Eliise; Louch, William Edward; Birkedal Nielsen, Rikke; Vendelin, Marko** 2022

### **Energy-efficiency of cardiomyocyte stimulation with rectangular pulses**

**Laasmaa, Martin; Lu, Pengfei; Vetic, Mladen; Louch, William Edward; Bergsland, Jacob; Balasingham, Ilango; Vendelin, Marko** Scientific reports 2019 / art. 13307, p. 1-9 <https://doi.org/10.1038/s41598-019-49791-w> [Journal metrics at Scopus](#) [Article at Scopus](#)  
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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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### **Kaasaagne mikroskoopia paljastab südame soopõhised struktuurierisused**

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### **Life-long creatine deficiency leads to adaptations in calcium handling but not heart failure**

**Branovets, Jelena; Laasmaa, Martin; Stolova, Jekaterina; Shen, Xin; Rätsepso, Triinu; Balodis, Mihkel Jaan; Grahv, Carolin; Hendrikson, Eliise; Louch, William Edward; Birkedal, Rikke** Biophysical Journal 2024 / p. 458A-459A  
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### **Localized CaMKII movement towards the Z-line mediates RyR phosphorylation in cardiomyocytes**

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### **Localized CaMKII $\delta$ movement at the RyR nanodomain mediates RyR phosphorylation**

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

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

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

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### **Prolonged $\beta$ -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 $\beta$ -adrenergic stimulation disperses ryanodine receptor clusters in cardiomyocytes and has implications for heart failure**

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

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

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### **Simple analysis of gel images with IOCBIO Gel**

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#### **Statistical Analysis of Fluorescence Intensity Transients with Bayesian Methods**

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#### **Stretch harmonizes sarcomere strain across the cardiomyocyte**

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#### **Современная микроскопия выявила гендерные структурные различия в сердце**

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