

Dynamic regulation of subcellular calcium handling in the atria

Citation for published version (APA):

Schönleitner, P. (2020). *Dynamic regulation of subcellular calcium handling in the atria: modifying effects of stretch and adrenergic stimulation*. [Doctoral Thesis, Maastricht University]. ProefschriftMaken Maastricht. <https://doi.org/10.26481/dis.20201215ps>

Document status and date:

Published: 01/01/2020

DOI:

[10.26481/dis.20201215ps](https://doi.org/10.26481/dis.20201215ps)

Document Version:

Publisher's PDF, also known as Version of record

Please check the document version of this publication:

- A submitted manuscript is the version of the article upon submission and before peer-review. There can be important differences between the submitted version and the official published version of record. People interested in the research are advised to contact the author for the final version of the publication, or visit the DOI to the publisher's website.
- The final author version and the galley proof are versions of the publication after peer review.
- The final published version features the final layout of the paper including the volume, issue and page numbers.

[Link to publication](#)

General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain.
- You may freely distribute the URL identifying the publication in the public portal.

If the publication is distributed under the terms of Article 25fa of the Dutch Copyright Act, indicated by the "Taverne" license above, please follow below link for the End User Agreement:

www.umlib.nl/taverne-license

Take down policy

If you believe that this document breaches copyright please contact us at:

repository@maastrichtuniversity.nl

providing details and we will investigate your claim.

Propositions to accompany the thesis

Dynamic regulation of Subcellular Calcium Handling in the Atria

Patrick Schönleitner

1. Acute uni-axial stretch increases Ca^{2+} spark frequency in atrial myocytes.
2. SAC_{ns} block does not abolish triggered activity evoked by uni-axial stretch of atrial myocytes.
3. Isoprenaline dependent RYR phosphorylation is insufficient to increase Ca^{2+} spark frequency from uncoupled RyRs.
4. Short term rapid atrial pacing leads to a reduction in transverse tubules in rabbit atrial myocytes.
5. Stretch and adrenergic stimulation increase subcellular contractile heterogeneity.
6. The complex structure of the atria and the limited control over experimental parameters pose a serious challenge for translating in-vitro findings to in-vivo setting.
7. SAC block is a novel and promising antiarrhythmic approach to AF under conditions of elevated atrial pressure or volume.
8. In scientific research easy things are often hard and hard things frequently impossible.
9. “An expert is [someone] who has made all the mistakes which can be made in a narrow field.” – Niels Bohr
10. "Der Mensch geht immer nur so weit, wie er glaubt, dass die Welt geht.“ - Thomas Bernhard