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Rho GTPases in Health and Disease

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Message from the Collection Editor

Dear Colleagues,

Rho GTPases are crucial organizers of the actin cytoskeleton with essential functions in cell migration and cell-cell contacts. In addition, Rho GTPases are involved in regulation of stemness. proliferation differentiation, and other cellular processes. Genetically modified mice provided, in the last few years, important and often surprising insights into the in vivo function of Rho GTPases, and cellular studies in vitro suggested novel molecular mechanisms underlying the observed effects. Still, many questions remain to be investigated in order to understand Rho GTPase function in development and disease. For example, what is the role of Rho GTPase crosstalk in vivo? What is the importance posttranslational modifications of Rho GTPases? How crucial is the parallel activation of different effector pathways by an activated Rho GTPase? How is Rho GTPase function in 3D systems related to 2D models, the currently preferred system for the molecular analysis of Rho GTPase signalling?

Keywords

- Rho GTPases
- Actin cytoskeleton
- In vivo disease models
- Rho GTPase regulation
- 3D in vitro models
- Development







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Message from the Editorial Board

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and Molecular Biology)

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