

IMEG Seminar Series

Onsite!!

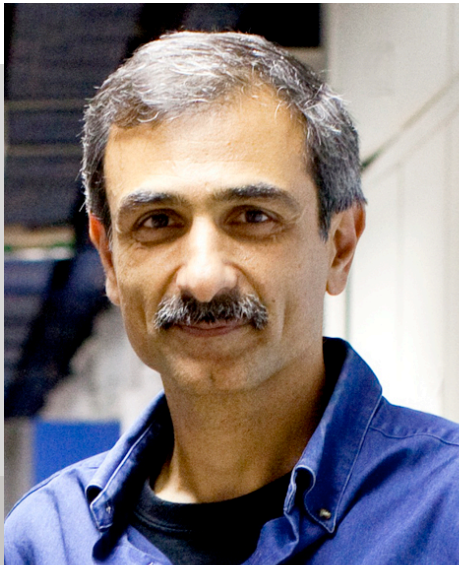
The road to global science

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March 1st, 2023, 16:00-17:00

Functional diversity and dynamics of muscle stem and niche cells in development and regeneration



This seminar series is open to all students and researchers in Kumamoto University.
The Zoom ID and passcode were sent via email. Check your inbox!

Muscle stem cells are heterogeneous in properties, both within a single muscle, and in different anatomical locations. The modular design that establishes muscles during development might explain why only subsets of muscles exhibit pathology in different myopathies. To investigate these differences, we examined the regulation of skeletal muscle stem cells during development, homeostasis, and regeneration. Transcriptional profiling and functional assays of muscle stem cells isolated from cranial and limb muscles displayed diversity at multiple levels where core gene regulatory networks were notably found to be distinct. In other studies, we established live imaging pipelines to follow consecutive cell divisions of muscle stem/progenitor cells on their myofibre niche ex vivo and in vivo. How stem cell properties are modulated in these different contexts will be discussed.