

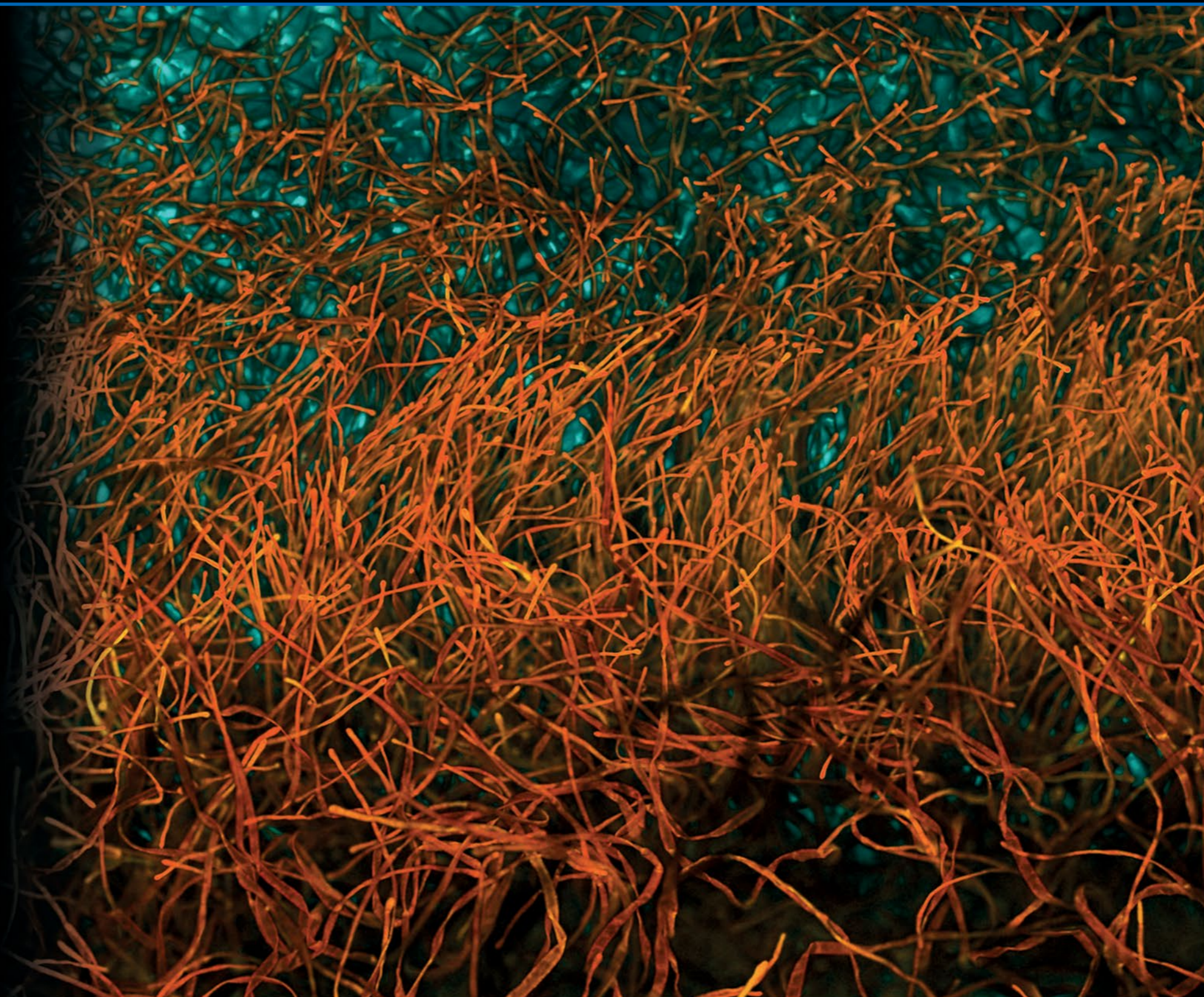
JANUARY

Adam Vogrin

RMIT University, Bundoora, Australia

Adaxial trichomes on an Australian wild iris (*Dietes grandiflora*) petal. Confocal microscopy image via autofluorescence using a 4x objective and a z-stack maximum intensity projection.

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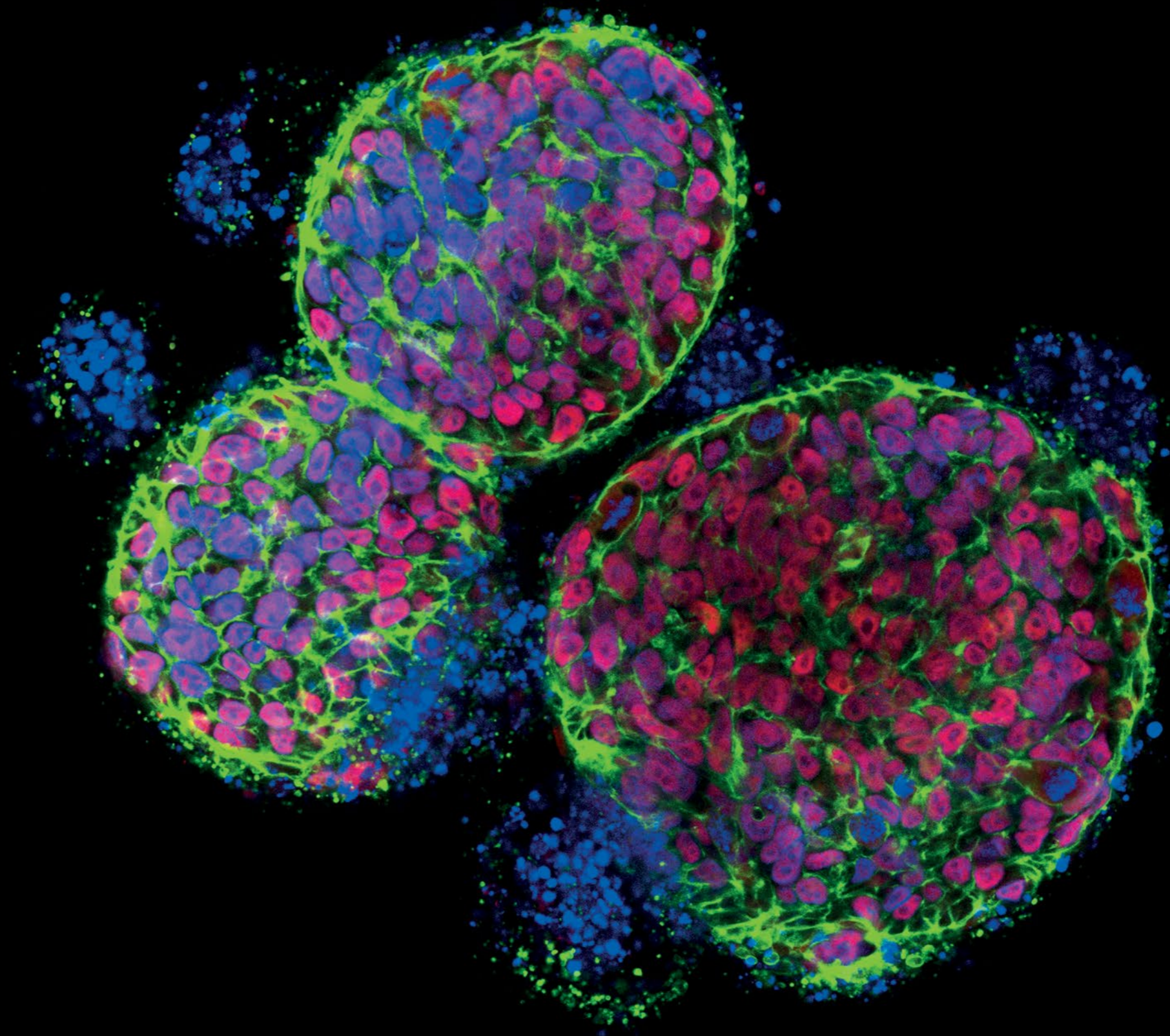


FEBRUARY

Syeda Inaas

University Hospital RWTH Aachen, Germany

Single induced pluripotent stem cells (iPSCs) were cultured in fibrin hydrogels in a μ -Plate 96 Well Black Glass Bottom. The iPSCs merge to form aggregates by day 7. They were stained for DAPI (nuclei, blue), phalloidin (F-actin, green), and Oct4 (red) to assess the extent of pluripotency of these iPSCs in the hydrogel. The image was acquired using a Zeiss LSM 710 with a 20x objective.



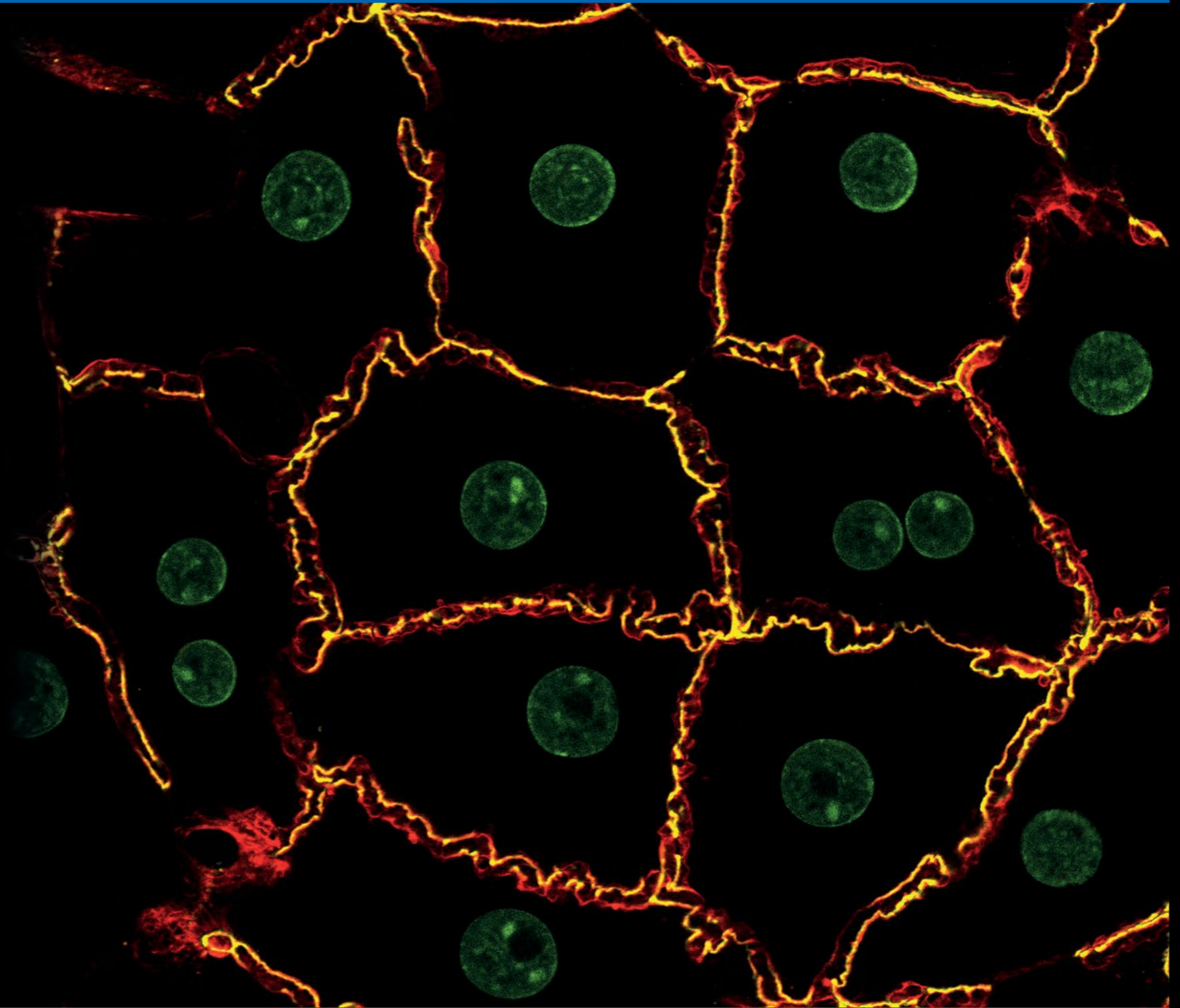
MARCH

Francisco Lázaro-Diéguez

Albert Einstein College of Medicine, Bronx, NY,
United States

Polarized primary rat hepatocytes were immuno-stained against the tight junction protein ZO-1 (yellow). Actin filaments (red) and nuclei (green) were stained with fluorescently labeled phalloidin and DAPI, respectively. The image is a projection of a z-stack acquired using a Leica TCS SP5 confocal microscope system with a 100x objective.

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APRIL

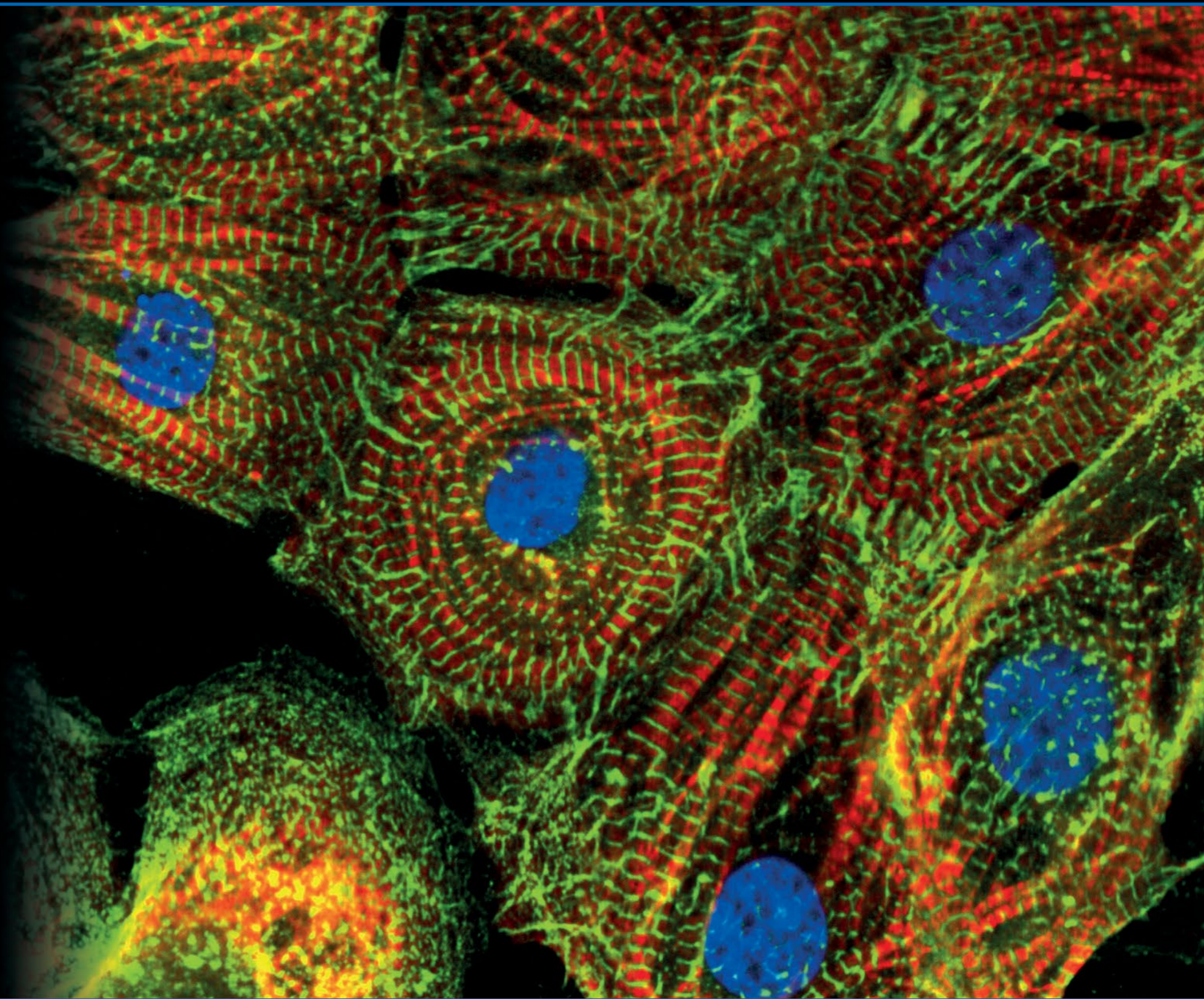
Alan Prescott

Dundee Imaging Facility, University of Dundee,
United Kingdom

Confocal z series from *Sphagnum* moss shown as a color-coded projection. The large spaces in the moss leaf are reservoirs holding water. This image was prepared as part of a project on *Sphagnum* moss by Kit Martin, a recent graduate in MFA Art, Science, and Visual Thinking. The image was created using a Zeiss LSM 710 confocal microscope.

Follow @dundeeuni on Twitter and University of Dundee on Facebook.





MAY

Remco Hoogervorst

Department of Physiology, Amsterdam
University Medical Centers, The Netherlands

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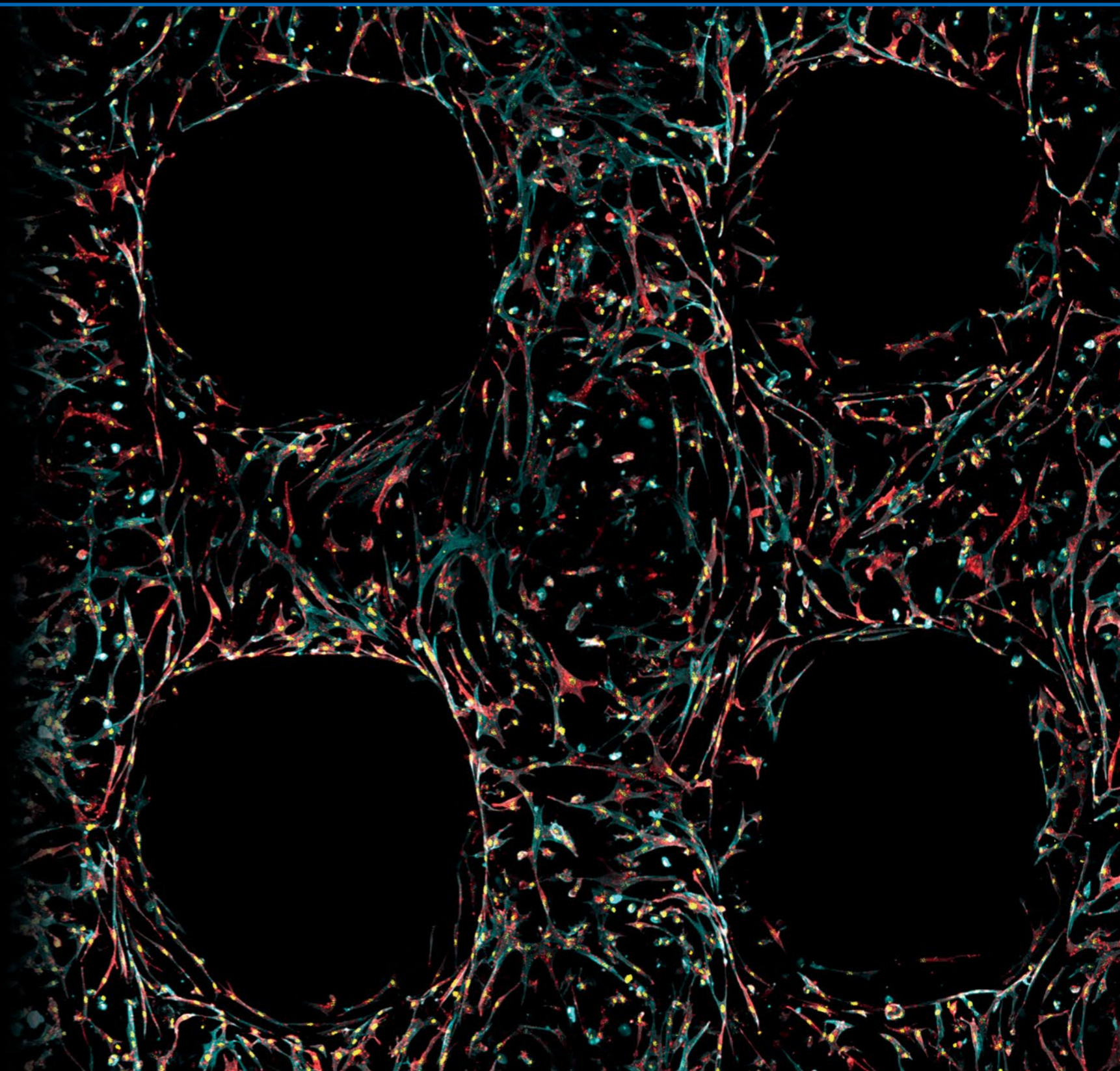
JUNE

Masoumeh Jahani Kadousaraei

Center for Translational Oral Research,
University of Bergen, Norway

3D-bioprinted human bone marrow mesenchymal stem cells in a photocrosslinkable material. The cells were stained for F-actin (cyan), Connexin 43 (red), and nuclei (yellow). The stitched image (2x2 tiles) with z-projection was captured using Andor DragonFly confocal microscopy (Nikon) and a 10x objective.

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JULY

Enrique González-Ortegón¹,
Ángel García-López²

¹ICMAN, Consejo Superior de Investigaciones Científicas, ²SC-ICYT, Universidad de Cádiz, Puerto Real, Spain

Maximum intensity projection showing the auto-fluorescence of the first zoeal stage of the coastal marine shrimp *Palaemon serratus*. The specimen was imaged in ethanol in a μ -Dish ^{35 mm, high} Glass Bottom using a Zeiss LSM 880 confocal microscope with a 10x air objective, 405 nm laser excitation, and 410–740 nm emission (pseudocolored in yellow).

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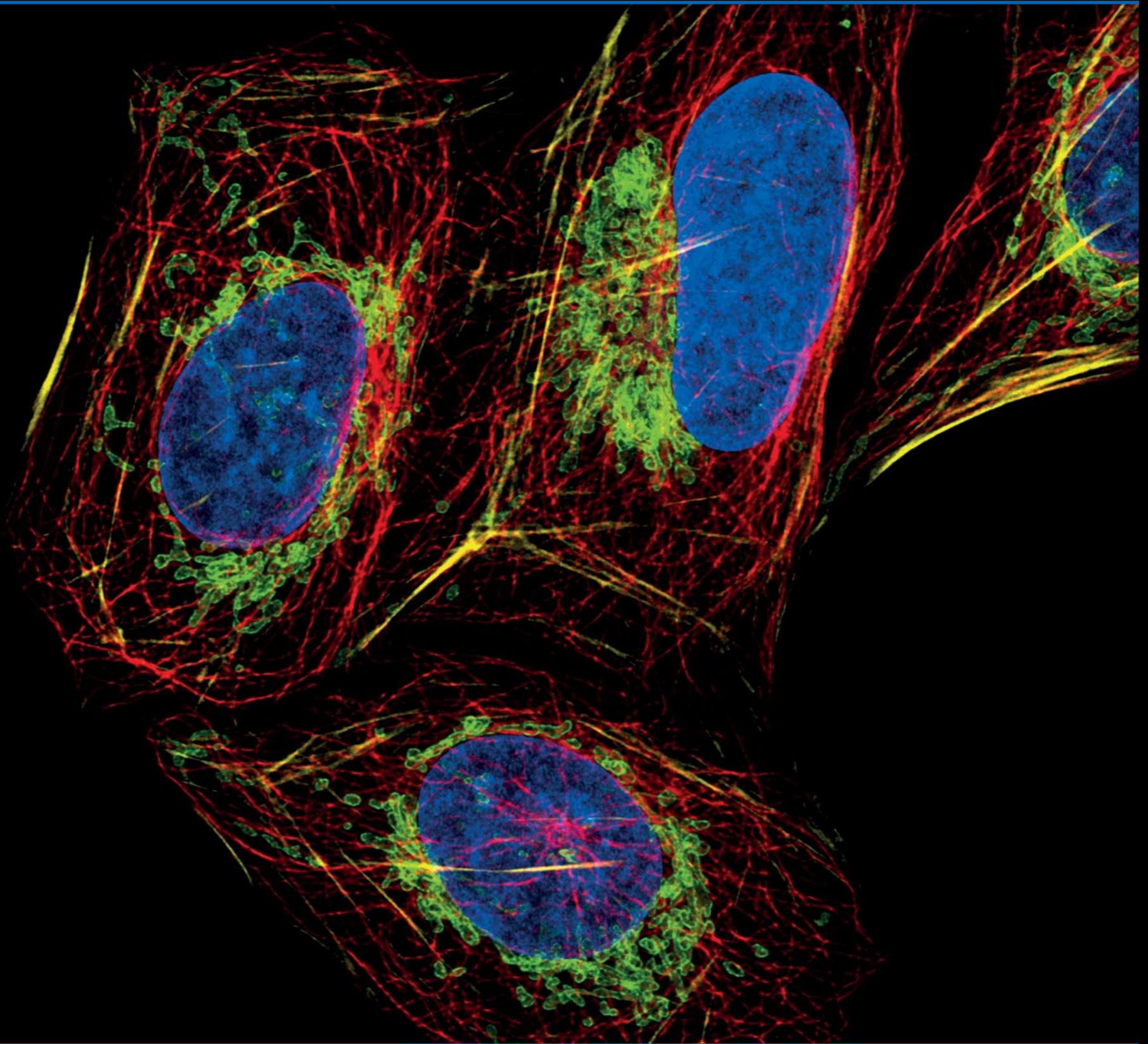
AUGUST

Harit Boonyaputthikul

Histocenter Co., Ltd., Bangkok, Thailand

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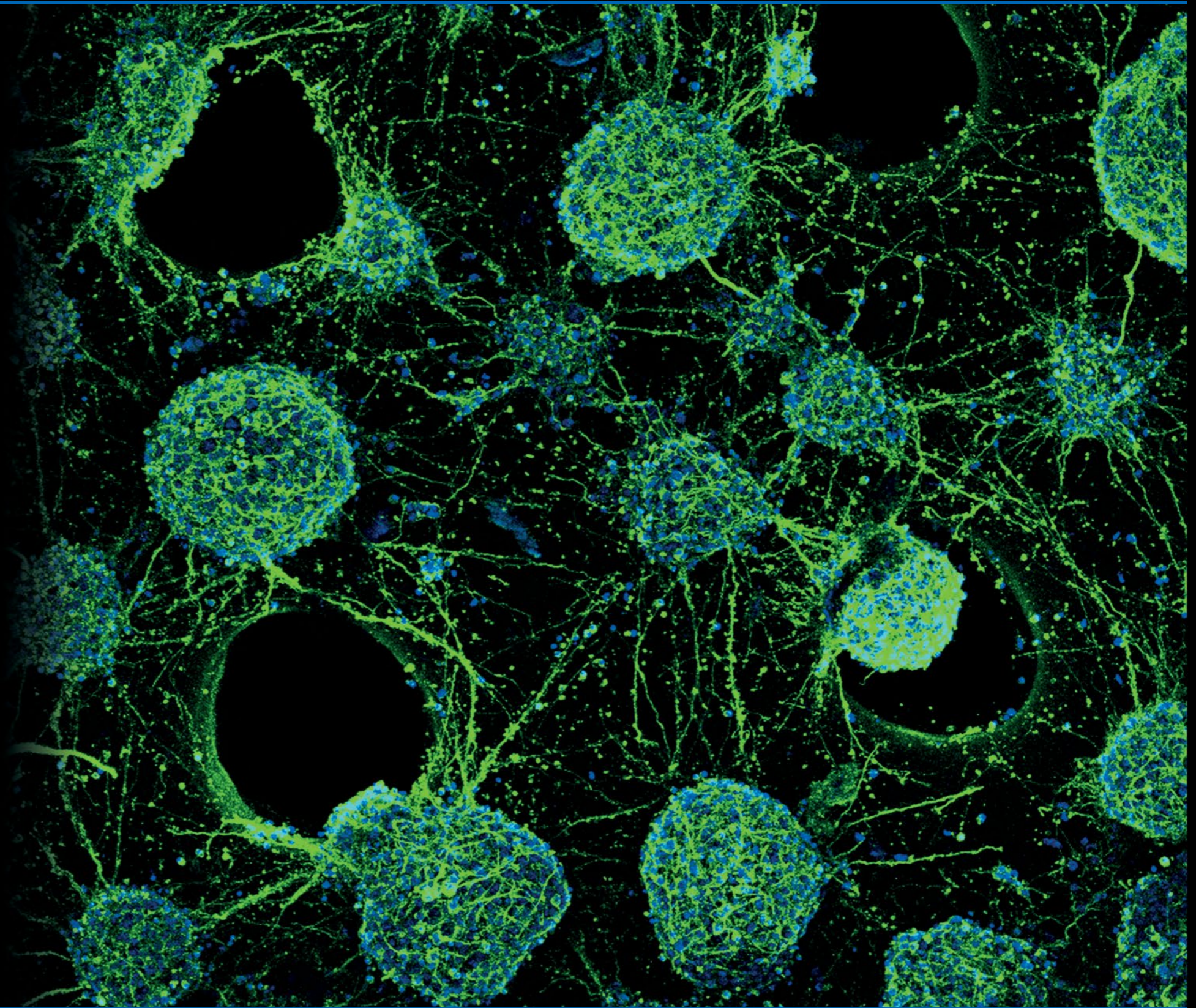
SEPTEMBER

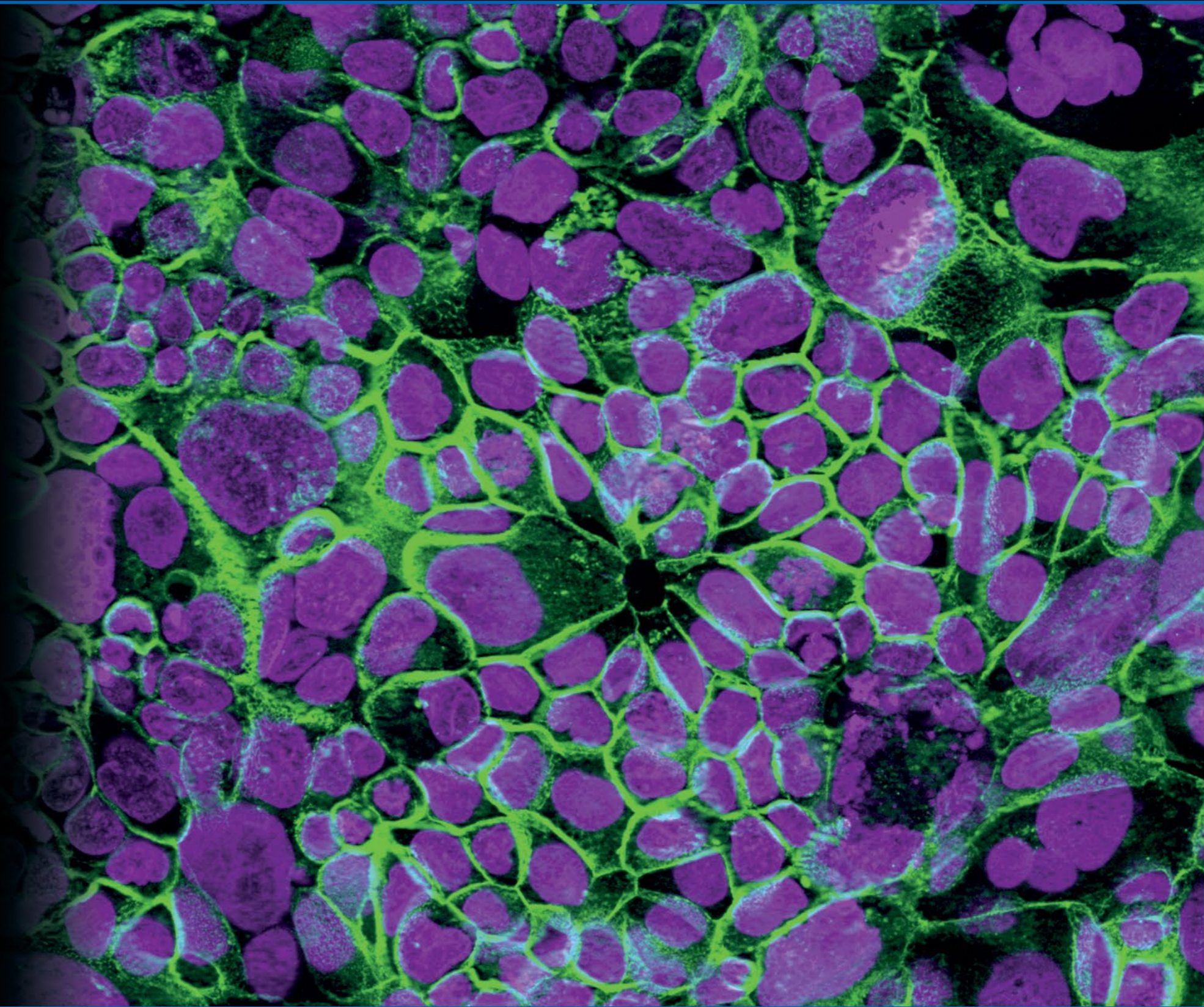
Joana Marques de Sousa

TEMA and CICECO, University of Aveiro,
Portugal

“Channeling Connections” is a confocal microscopy image of neuronal network formation after retinoic acid-induced differentiation of neural stem cells on amniotic membrane-derived multichannel hydrogels. Neurons were labeled using Tuj1 (green), while nuclei were counterstained using the ibidi Mounting Medium with DAPI (blue). The image was acquired using a Zeiss LSM 900 KMAT confocal microscope with a 10x objective.

Follow @joanapmsousa on Instagram and Joana Marques de Sousa on LinkedIn.





OCTOBER

José Martin Murrieta-Coxca

Placenta Lab, Department of Obstetrics, Jena University Hospital, Germany

BeWo cells (trophoblasts) were cultivated under flow using the ibidi Pump System and the Perfusion Set Red. These cells mimick the placenta barrier (on-chip). Cells were immunostained to label β -catenin (green) and nuclei (violet). They were imaged using a Zeiss LSM 710 laser scanning confocal microscope with a 20x objective.

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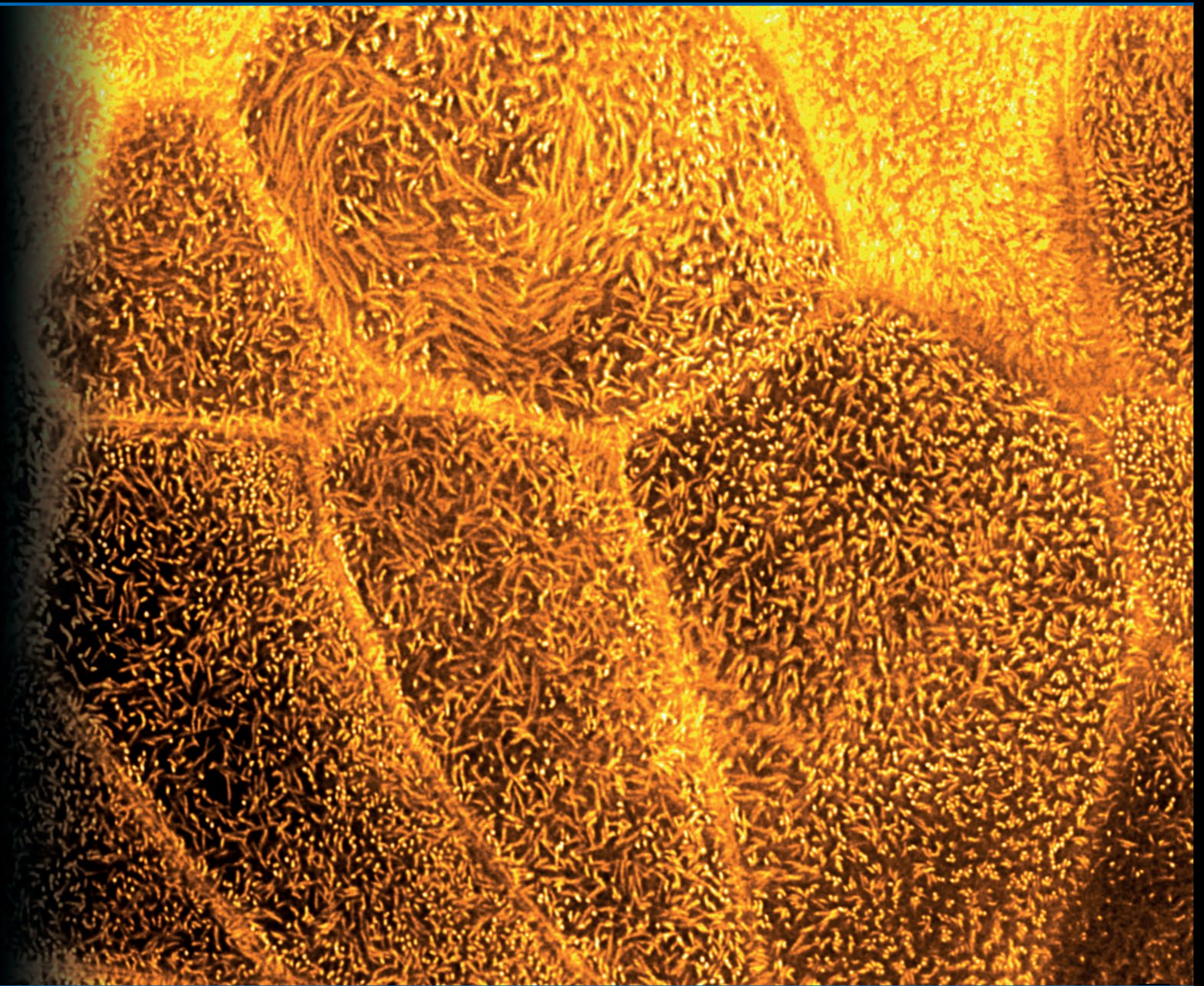
NOVEMBER

Corinne Lebreton

Imagine Institute - INSERM U1163, Paris, France

Microvilli on epithelial cells derived from a 3D culture of intestinal organoids, cultured in 2D in a μ -Slide 1⁰⁴ Luer to study cell differentiation after shear stress. Microvilli were stained with phalloidin-Atto 550. Super-resolution imaging was performed with a STED (stimulated emission depletion) confocal microscope with a 600 nm depletion laser and a 100x objective.

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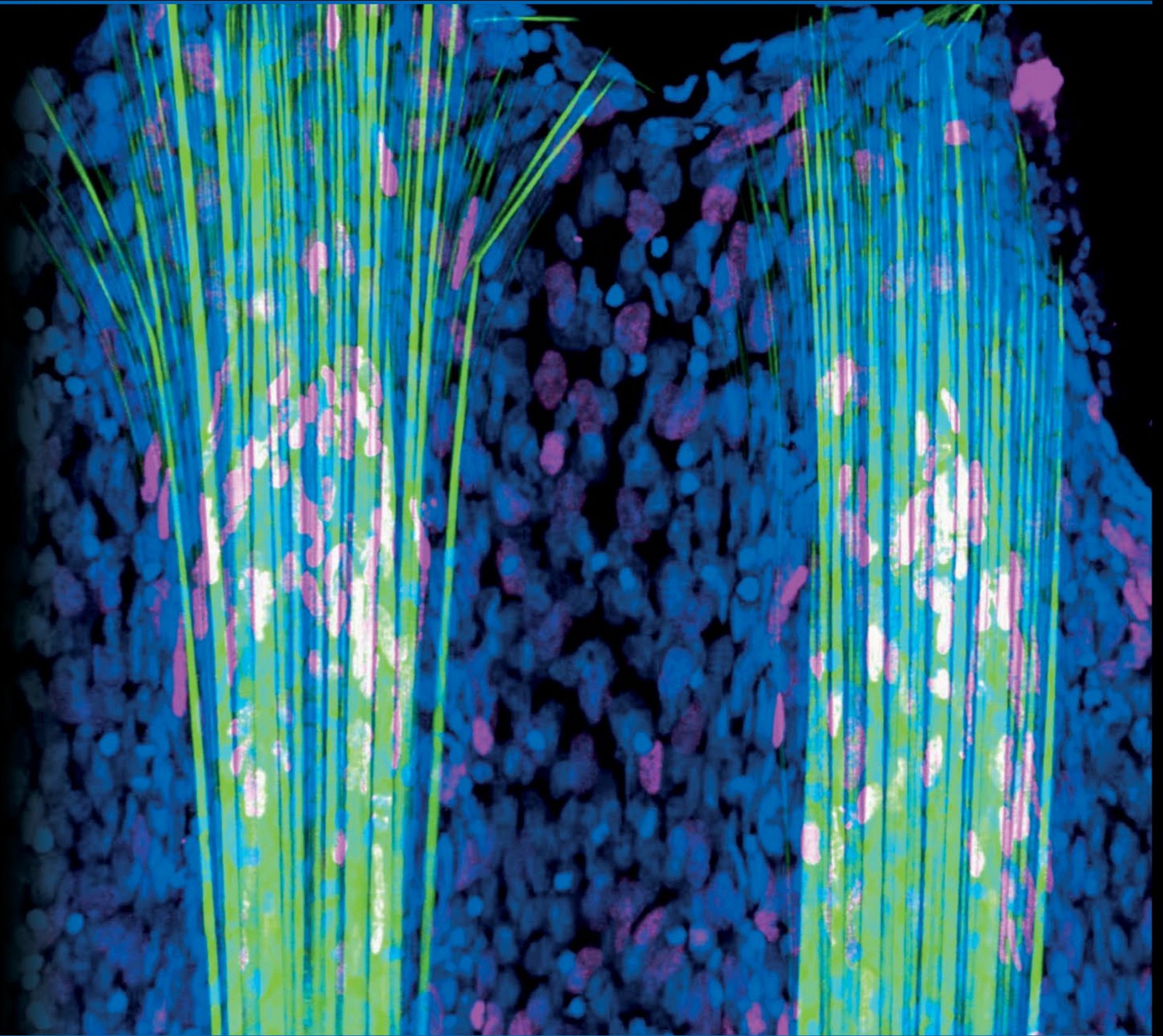


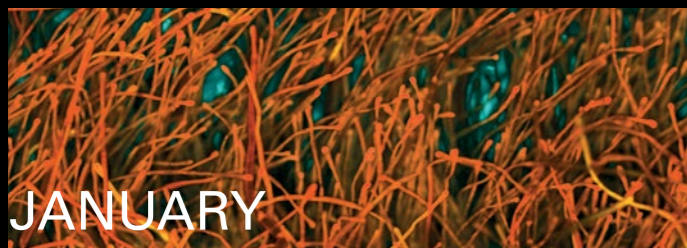
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Junpei Kuroda

Graduate School of Frontier Biosciences,
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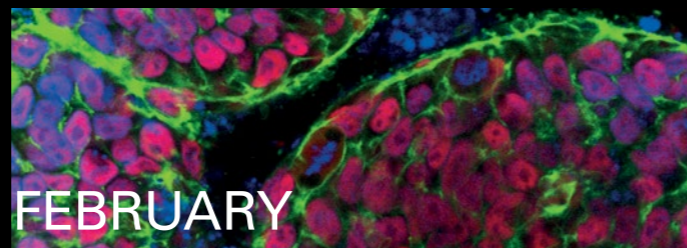
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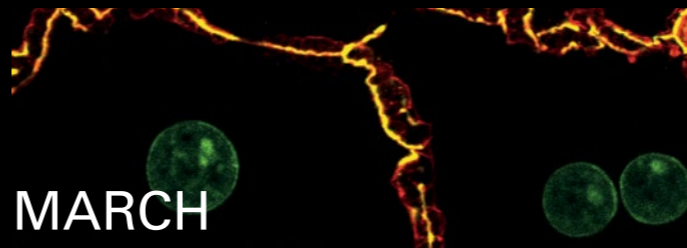


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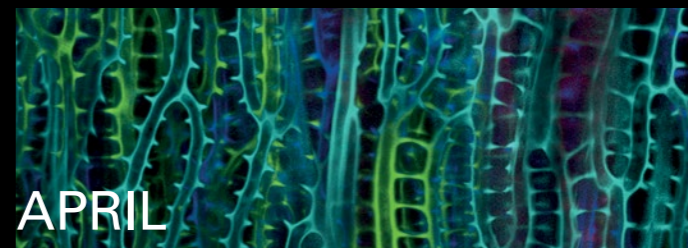
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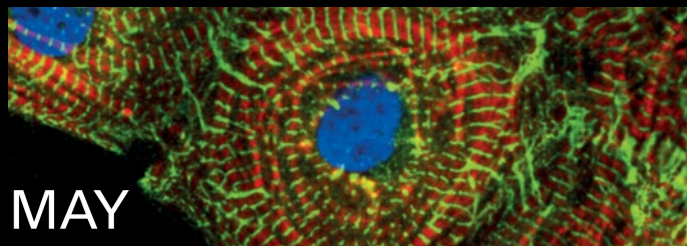
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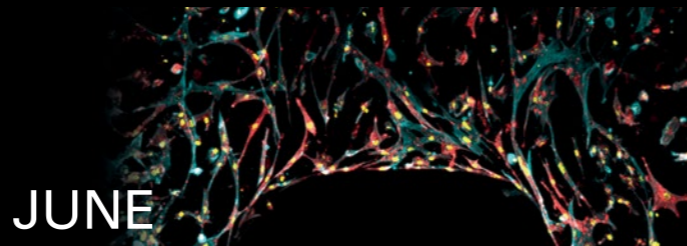
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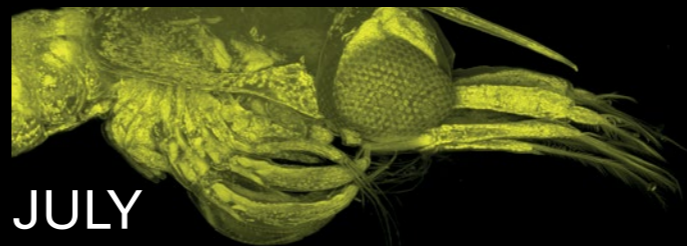
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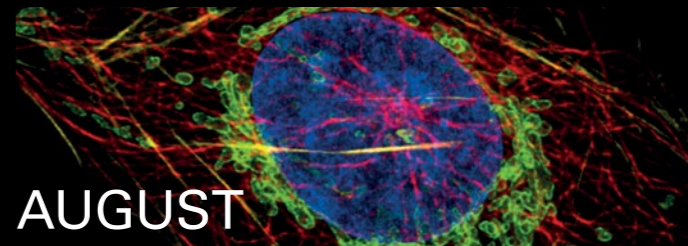
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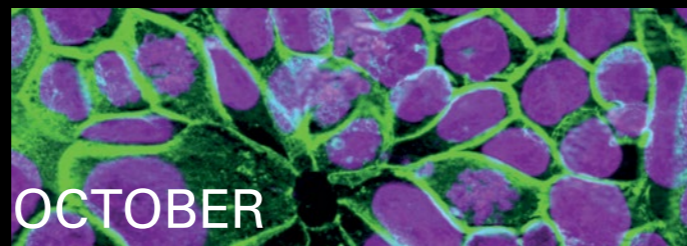
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