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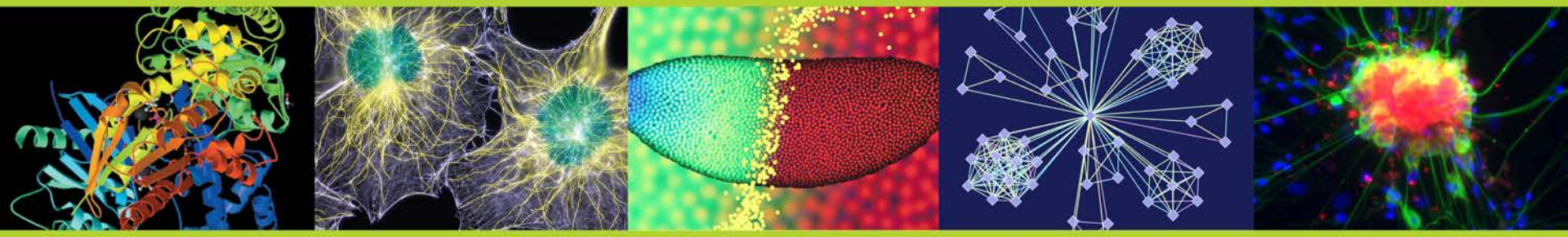
Science Writing, Editing & Education

URMA meeting
July 16, 2014

National Institute of General Medical Sciences

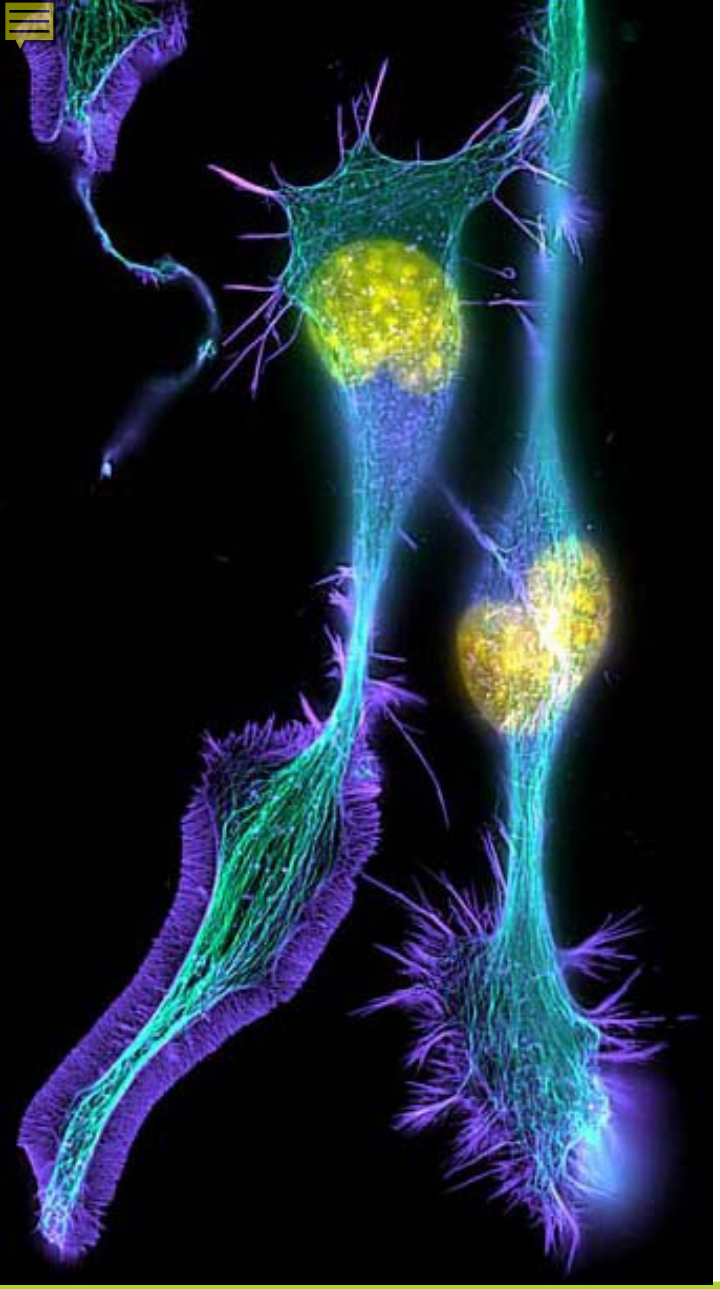
An Insider's View of *Life: Magnified*

An unusual way to get your institution noticed by millions (literally!) of people



What is *Life: Magnified?*

An exhibit of stunning science in two places



The airport exhibit

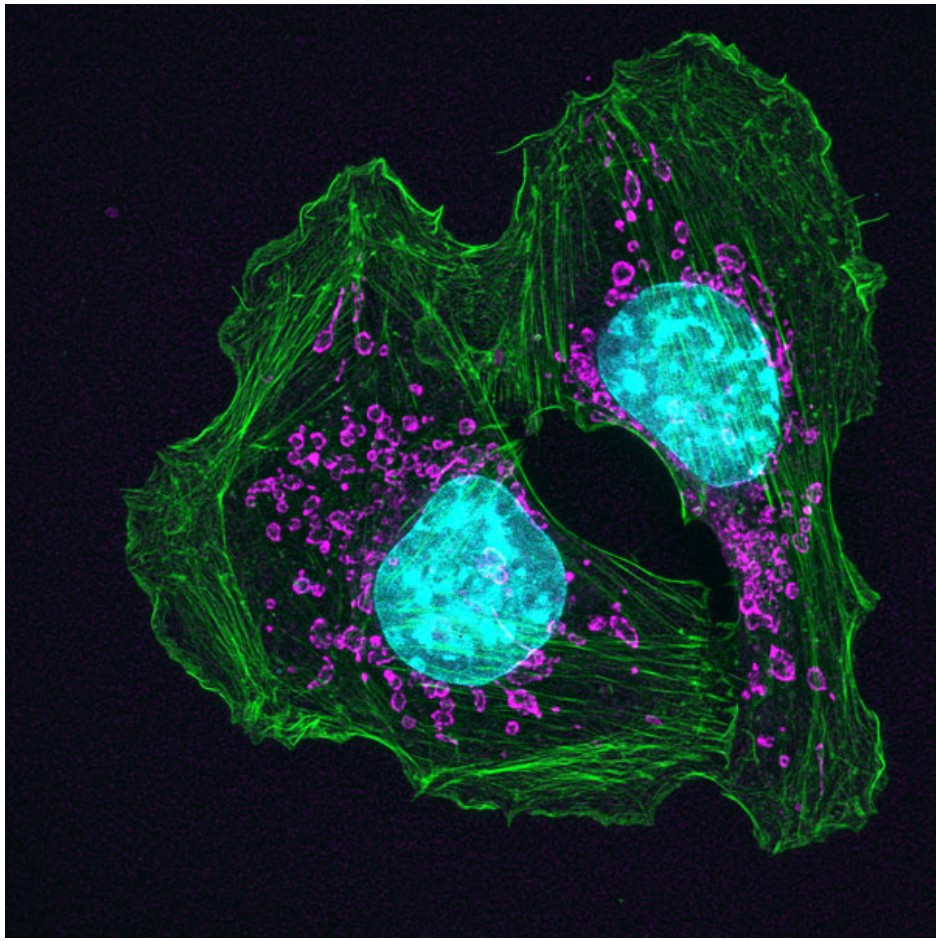
- 46 colorful microscopy images
- On display for 6 months at Washington Dulles International Airport
- Will be seen by 2 million travelers
- Potential reuse in future exhibits—local or traveling
- BUT can only seen by ticketed passengers
- YET it includes a QR code for…

The online gallery

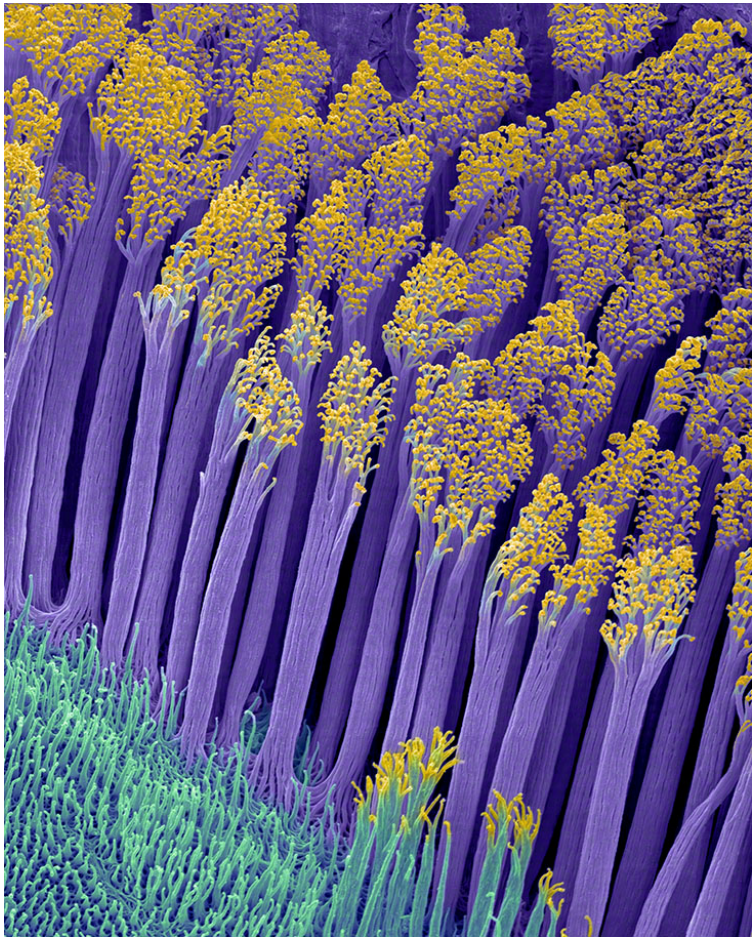
- Broadens and lengthens access
- Adds context and value
  - Introductory text & longer captions
  - Downloadable high-resolution images
  - Options for interactive features
- Resource link for online outlets, social media
- ~47,000 hits so far
  - ~ 4,500 page views/week
  - some media outlets create their own gallery or online slideshow

Airport + Online = Lots of coverage

- *Science, Science News, Chemical & Engineering News, The Scientist* (image of the day)
- Online versions of *National Geographic, The Atlantic, Scientific American*
- *The Washington Post*, (print and online), NBC News online, The Weather Channel (online video slideshow)
- BuzzFeed (> 85,000 views), My Modern Met (arts trend spotting site), Carl Zimmer's Good Reads blog, NIH director's blog



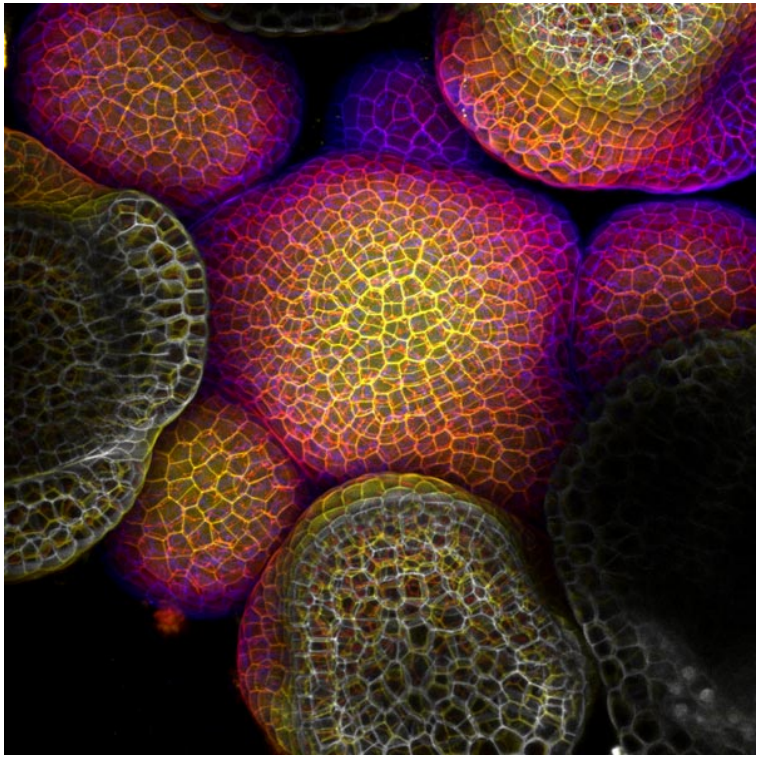
What the images, stories convey (we hope)

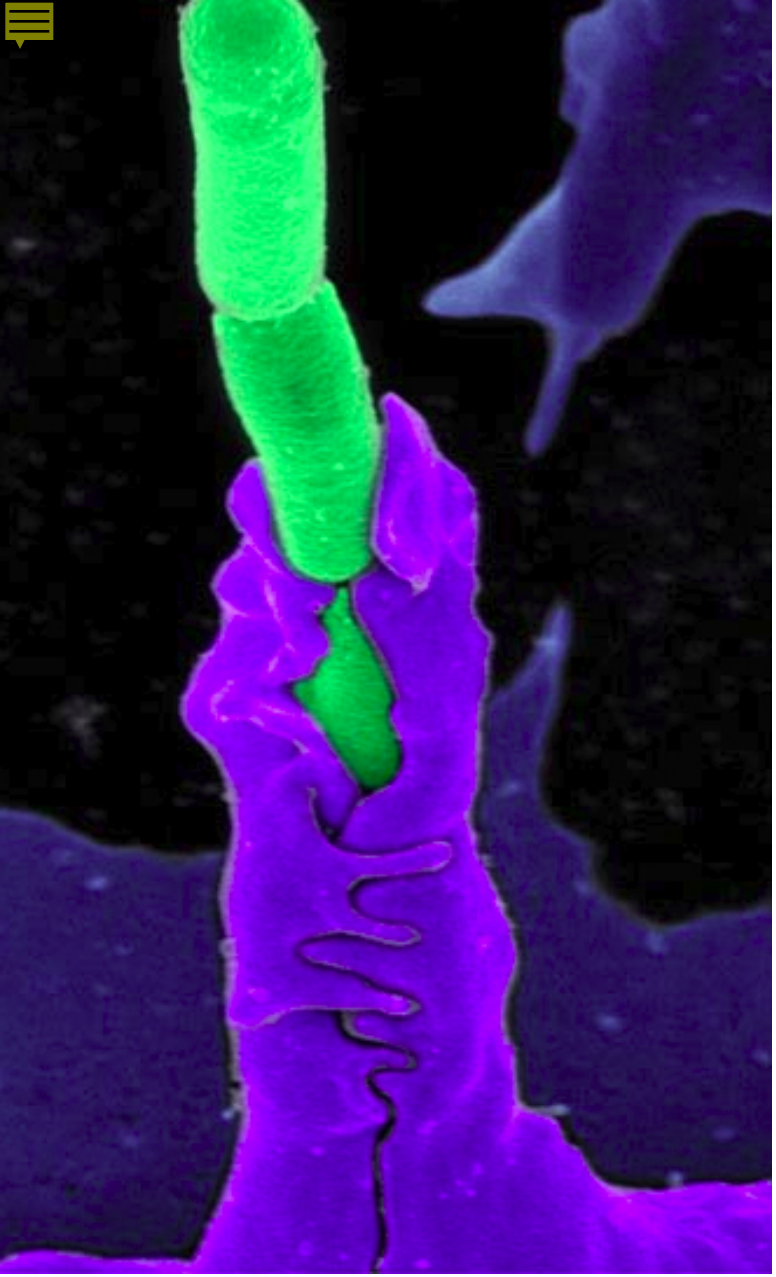


- Beauty, wonder and complexity of life at the cellular level
- Basic research is the foundation of medical advances
- Model organisms are critical
- Institutional messaging, e.g.,
  - Your tax dollars supported this [terrific] research
  - Other concepts I won't put in writing

Example headlines

- **21 Jaw-Dropping Photographs of Life, Magnified** (BuzzFeed)
- **Life Magnified: The Alien Familiarity of the Cellular World** *(The Atlantic)*
- **Microscapes take off at D.C's Dulles airport** *(Science News)*
- **La bellezza del male** [“The Beauty of Evil”] (the Italian edition of *Scientific American*)
- **Zooming in on a fin** (*Science*)
- **Exhibit of cellular-level photos reveals unseen details about common laboratory subjects** (*Washington Post,* Health & Science)
- **11 amazing images from high-powered microscopes** *(Washington Post,* Innovations)



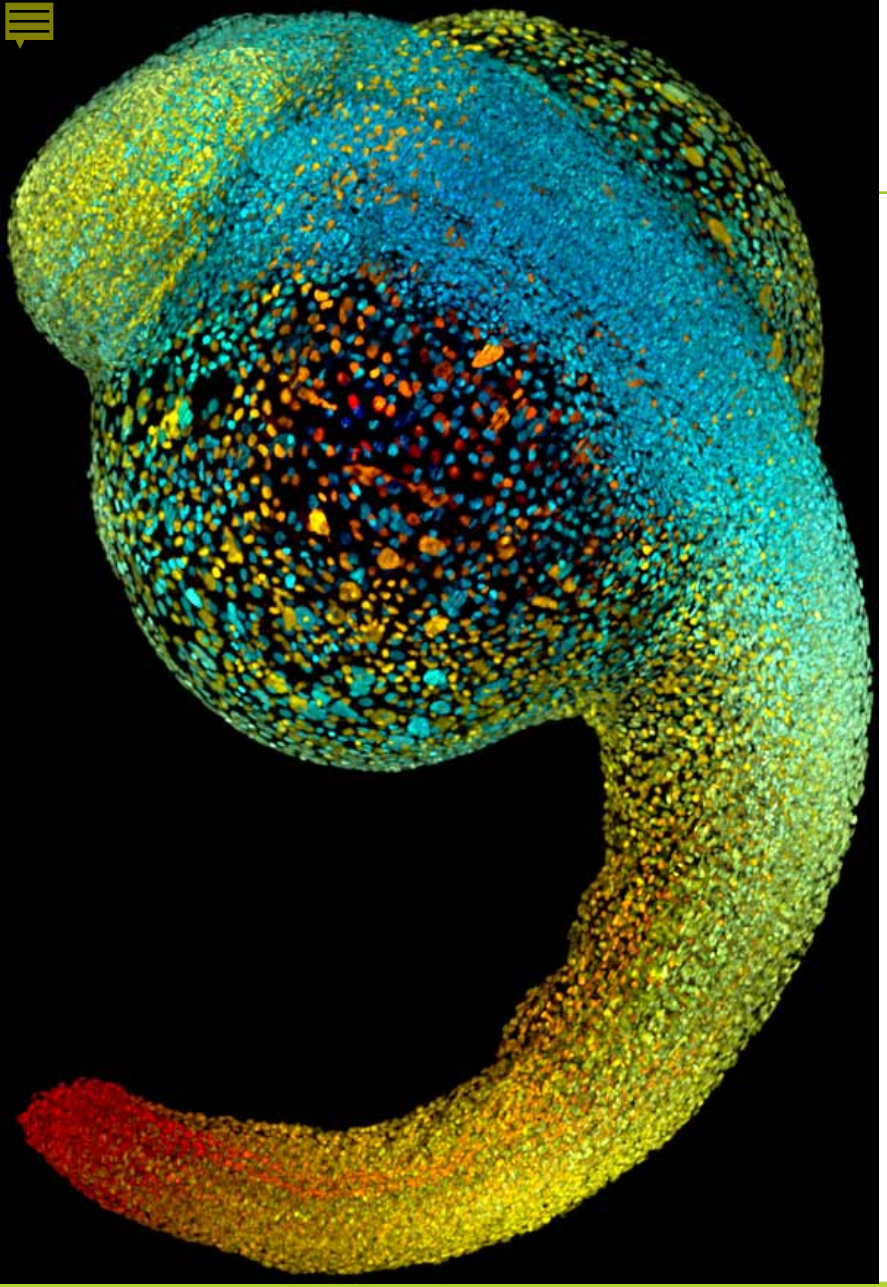


A close partnership

- **NIGMS:** scientific, editorial and organizational skills, communications with researchers & media, writing titles & captions, designing layout, hosting online gallery, some publicity
- **ASCB:** organizational skill, outreach to large membership, Web server space, obtaining corporate sponsor, more publicity and media relations, opening reception
- **ZEISS:** paid for printing
- **MWAA:** large public venue, guidance, physical labor to install/maintain, publicity to transportation outlets

Getting the images

- ASCB and NIGMS leaders each put out a call to the scientific community via blog
- ASCB set up a Web page and ftp site to collect submissions
- We received more than 600 (!) images from all over the world



Selecting finalists

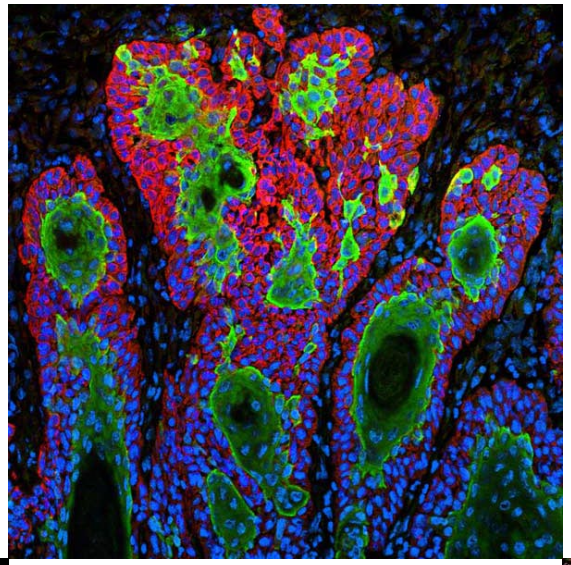
Repeated rounds of ranking, then ASCB and NIGMS leaders judged final ~170 based on:

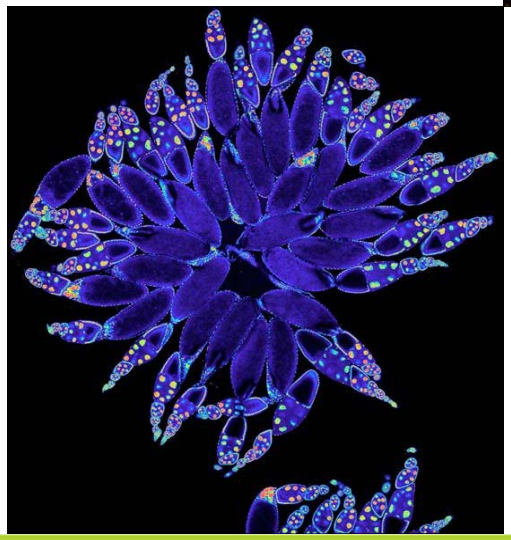
- Beauty, biomedical relevance, cell/molecular scale, photos (no computer or artist renderings)
- Variety in technique, tissue type, organism, submitter (no more than two from any person)
- Preference for U.S.-based, non-commercial, NIH-supported
- Submitter must allow images to be put in the public domain

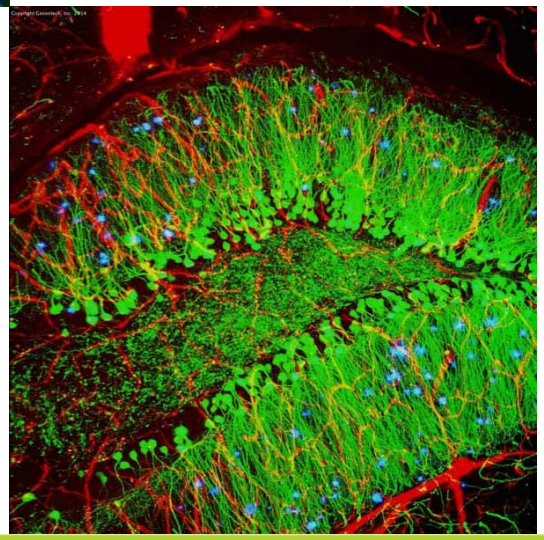
We are not alone

- Other airports also feature cellular/microscopy images
  - Chicago O'Hare
  - San Diego
  - Philadelphia
- Other public spaces
  - Paris metro

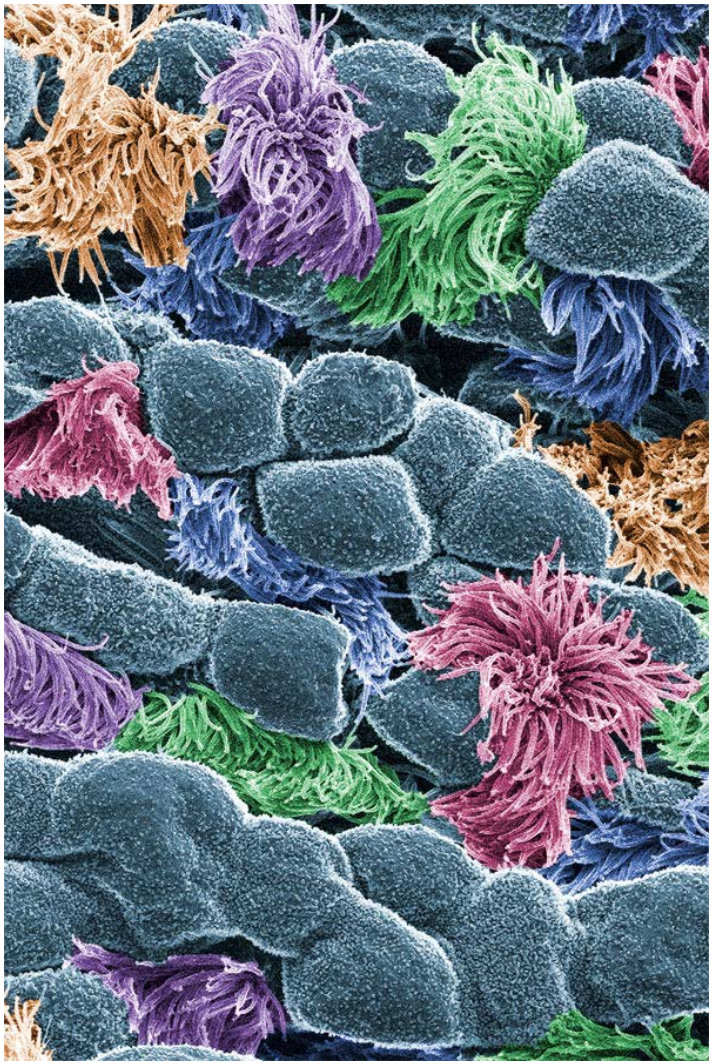
A few more images just for kicks



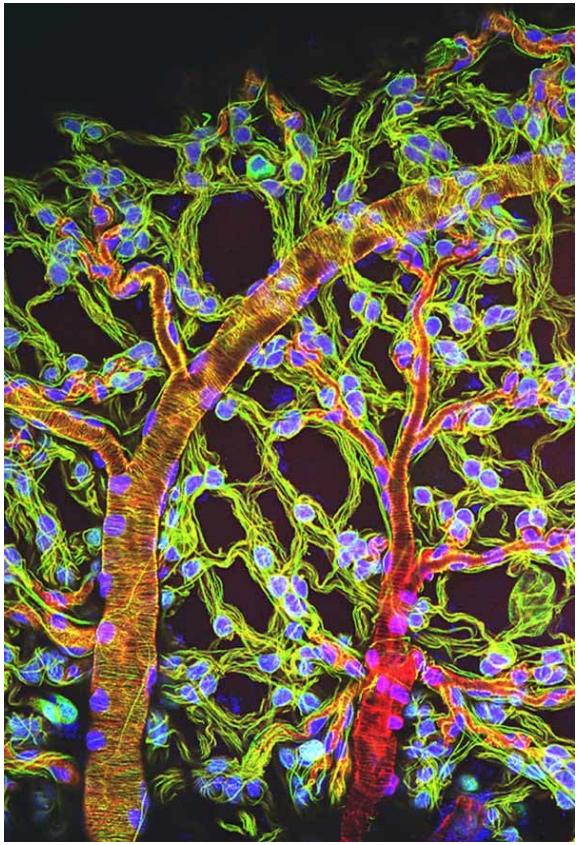


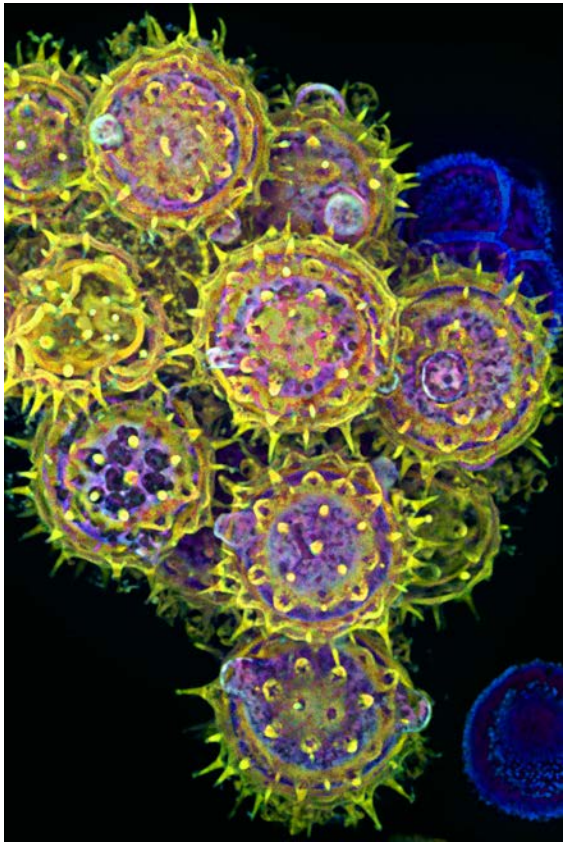


Because I have so many



And they’re so purdy





Questions? Comments? Chocolate?

Online gallery:

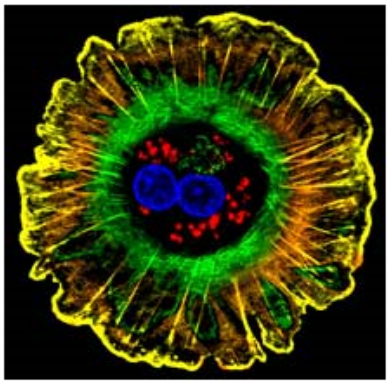
http://www.nigms.nih.gov/Life-Magnified.aspx

Contact:

alisa.machalek@nih.gov

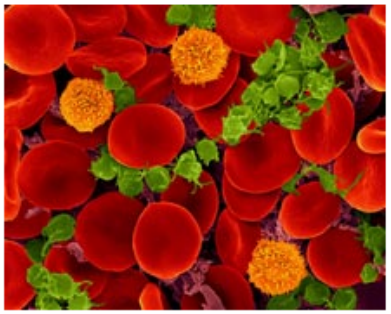
301-496-7301

A glimpse of the online gallery



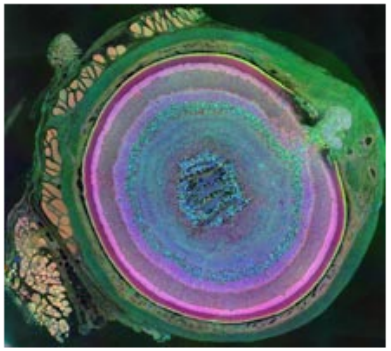
Human liver cell (hepatocyte)
Donna Beer Stolz, University of Pittsburgh

Hepatocytes, like the one shown here, are the most abundant type of cell in the human liver. They play an important role in building proteins; producing bile, a liquid that aids in digesting fats; and chemically processing molecules found normally in the body, like hormones, as well as foreign substances like medicines and alcohol.



Human blood with red blood cells, T cells (orange) and platelets (green)
Dennis Kunkel, Dennis Kunkel Microscopy, Inc.

This microscopic look at human blood reveals that nearly half of our blood is composed of red blood cells. These lozenge-shaped cells have the all-important role of delivering oxygen to our tissues. T cells (orange) are an essential part of the immune system. Platelets (green), the smallest blood cells, clump together into clots to stanch bleeding after an injury.



A mammalian eye has approximately 70 different cell types
Bryan William Jones and Robert E. Marc, University of Utah

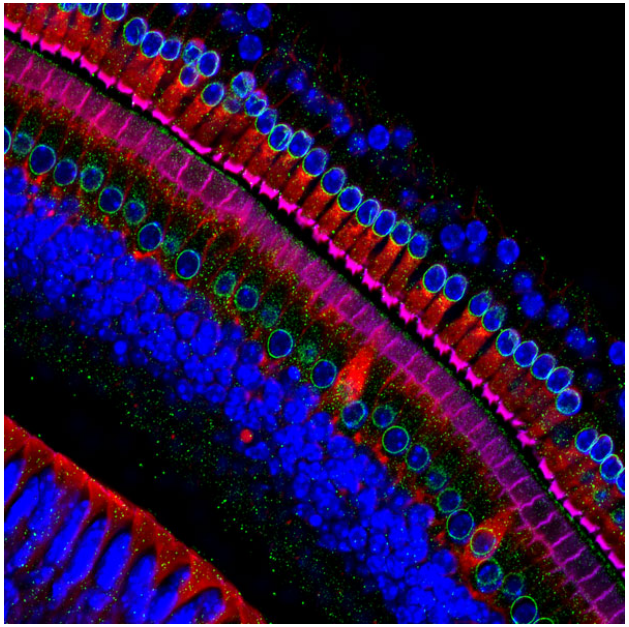
The incredible complexity of a mammalian eye (in this case from a mouse) is captured here. Each color represents a different type of cell. In total, there are nearly 70 different cell types, including the retina's many rings and the peach-colored muscle cells clustered on the left.

Each image has its own sub-page

Hair cells: the sound-sensing cells in the ear

Henning Horn, Brian Burke and Colin Stewart, Institute of Medical Biology, Agency for Science, Technology, and Research, Singapore

Download hi-res image [37 MB]



These cells get their name from the hairlike structures that extend from them into the fluid-filled tube of the inner ear. When sound reaches the ear, the hairs bend and the cells convert this movement into signals that are relayed to the brain. When we pump up the music in our cars or join tens of thousands of cheering fans at a football stadium, the noise can make the hairs bend so far that they actually break, resulting in long-term hearing loss.