
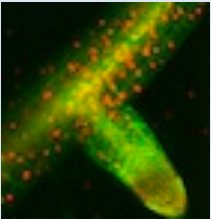
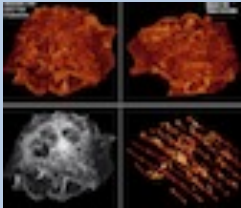



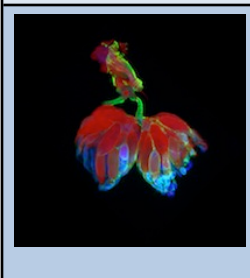

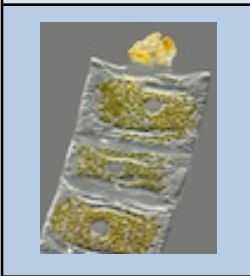
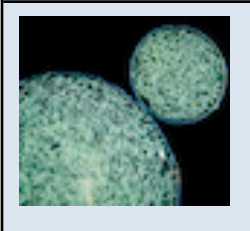


## 2011 Olympus BioScapes Digital Imaging Competition® Winners, Technical Merit Award and Honorable Mentions

Image	Prize	Name	Largest file size	Caption info
	<b>1</b>	Mr. Charles Krebs	4mb	Rotifer <i>Floscularia ringens</i> feeding. Its rapidly beating cilia (hair-like structures) bring water that contains food to the rotifer. The "wheel animacules" were first described by Leeuwenhoek (ca. 1702); when their cilia beat, they look like they have two wheels spinning on top. They live in reddish-brown tubes made of spherical "bricks." Differential interference contrast microscopy. Charles Krebs, Issaquah, WA, USA. First Prize, 2011 Olympus BioScapes Digital Imaging Competition®.
MOVIE 	<b>2</b>	Mr. Daniel von Wangenheim	MOVIE 24mb	MOVIE: <i>Arabidopsis thaliana</i> , showing a lateral root growing out of the primary root. A stack of images was recorded every 15 minutes over a period of 75 hours. Digital scanned light-sheet microscopy. Daniel von Wangenheim, Frankfurt Institute for Molecular Life Sciences, Goethe University, Frankfurt, Germany. Second Prize, 2011 Olympus BioScapes Digital Imaging Competition®.
MOVIE 	<b>3</b>	Dr. Liang Gao	MOVIE 26.5mb	MOVIE: COS-7 cells, derived from African green monkey kidney cells, imaged using Bessel beam super-resolution structured illumination microscopy. Cells of this type are often transfected for biochemistry and cell biology research. Liang Gao, Howard Hughes Medical Institute, Janelia Farm Research Campus, Ashburn, VA, USA. Third Prize, 2011 Olympus BioScapes Digital Imaging Competition®.
MOVIE 	<b>4</b>	Mr. Edwin Lee	MOVIE 33mb	MOVIE: <i>Paramecia</i> contractile vacuoles regulate water pressure within the protozoan's body. Water enters through the cell wall by osmosis and then passes through the cytoplasm to the vacuole's canals. When filled, the vacuole expels the water from the cell's body. Phase contrast microscopy. Edwin Lee, Carrollton, TX, USA. Fourth Prize, 2011 Olympus BioScapes Digital Imaging Competition®.
	<b>5</b>	Mr. James Nicholson	18.3mb	Live green brain coral ( <i>Goniastrea sp.</i> ), under water. One full polyp in the center is shown with four surrounding polyps. Walled corallites are purple. All color is the natural autofluorescence of the coral with the exception of the purple, which is near-violet LED illumination to highlight near-transparent tissue. James Nicholson, NOAA/NOS/NCCOS Center for Coastal Environmental Health & Biomolecular Research, Fort Johnson Marine Lab, Charleston, SC, USA. Fifth Prize, 2011 Olympus BioScapes Digital Imaging Competition®.

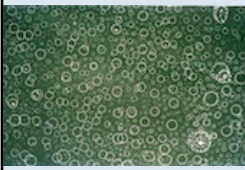


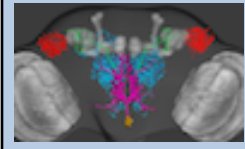
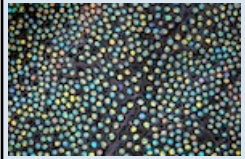


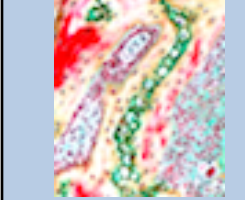
## 2011 Olympus BioScapes Digital Imaging Competition® Winners, Technical Merit Award and Honorable Mentions

	<b>6</b>	Mr. Haris Antonopoulos	11.7mb	Stink bug eggs. Stink bugs are agricultural pests that exist throughout the world. When disturbed, they emit a characteristic foul-smelling odor. Brightfield illumination. Haris Antonopoulos, Athens, Greece. Sixth Prize, 2011 Olympus BioScapes Digital Imaging Competition®.
	<b>7</b>	Mr. Gunnar Newquist	22.6mb	Fruitfly ovaries and uterus. The muscular and neural structure of the <i>Drosophila melanogaster</i> reproductive system is shown using fluorescence microscopy. The background staining of the eggs in red is a specific function of the mutant fly strain that is pictured here. Gunnar Newquist, University of Nevada, Reno, USA. Seventh Prize, 2011 Olympus BioScapes Digital Imaging Competition®.
<p style="text-align: center;">MOVIE</p> 	<b>8</b>	Dr. James LaFountain and Dr. Rudolf Oldenbourg	MOVIE 45.8mb	MOVIE: Crane fly <i>Nephrotoma suturalis</i> sperm cell at metaphase of meiosis. Images were captured every 15 seconds for 35 minutes of cell division. Polarized light microscopy. James LaFountain, State University of NY at Buffalo, and Rudolf Oldenbourg, Marine Biological Laboratory, Woods Hole, MA, USA. Eighth Prize, 2011 Olympus BioScapes Digital Imaging Competition®.
	<b>9</b>	Mr. Wolfgang Bettighofer	8mb opens to 21mb	Living diatom <i>Mediopyxis helysia</i> , showing the cell nuclei and golden chloroplasts, captured using brightfield microscopy. On top there is a bacteria colony in mucilage. Specimen is from the North Sea. Wolfgang Bettighofer, Kiel, Germany. Ninth Prize, 2011 Olympus BioScapes Digital Imaging Competition®.
	<b>10</b>	Mr. Gerd Günther (may also write as: Guenther)	3.6mb	Spherical colonies of <i>Nostoc commune</i> , a bluegreen alga. Darkfield illumination. Gerd Guenther, Duesseldorf, Germany. Tenth Prize, 2011 Olympus BioScapes Digital Imaging Competition®.

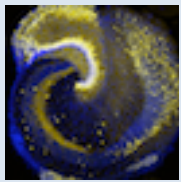

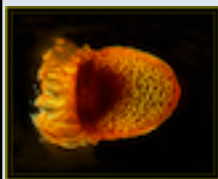
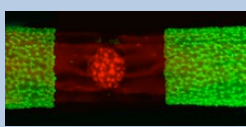
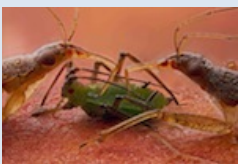
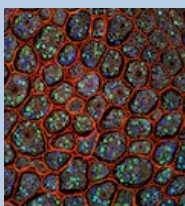
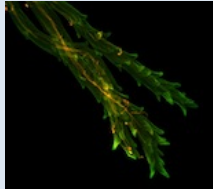
## 2011 Olympus BioScapes Digital Imaging Competition® Winners, Technical Merit Award and Honorable Mentions

SPECIAL AWARD FOR TECHNICAL MERIT				
MOVIE	Tech Merit	Dr. Stephen Smith	MOVIE 696.1 mb	<p>MOVIE: Mouse somatosensory cortex. A volume visualization “fly-through” of a sagittally oriented rectangular slab of transgenic mouse somatosensory cortex. The overlay thumbnail at upper left renders a projection through the entire slab and the moving magenta rectangle shows the variably smaller area rendered full screen. The rendered volume was acquired by array tomography and stitched together in three dimensions from &gt;10,000 image tiles. Green in this movie renders native FFP fluorescence, red renders anti-synapsin I immunofluorescence, and blue renders anti-tubulin immunofluorescence. More information is provided in two articles: Micheva, K.D., Busse, B.L., Weiler, N.C., O'Rourke, N., Smith, S.J (2010) Single-synapse analysis of a diverse synapse population: Proteomic imaging methods and markers, <i>Neuron</i> 68:639-653; and Micheva, K.D., and Smith, S.J (2007) Array tomography: A new tool for imaging the molecular architecture and ultrastructure of neural circuits, <i>Neuron</i> 55:25-36. Dr. Smith wishes to acknowledge the work of Kristina Micheva, Brad Busse, Nicholas Weiler, Nancy O'Rourke and Gordon Wang. This video does not have audio on the Olympus BioScapes website, but a score by Catherine Rose Smith has been composed and performed to accompany the video. Stephen Smith, Stanford University, Stanford, CA, USA. Judges' Special Award for Technical Merit, 2011 Olympus BioScapes Digital Imaging Competition®.</p>

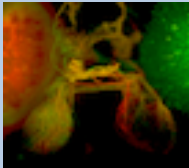
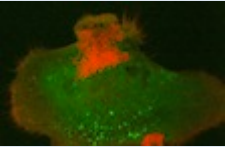
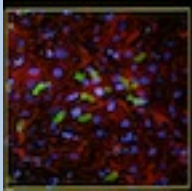


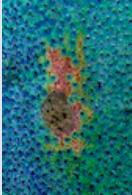
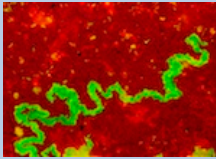
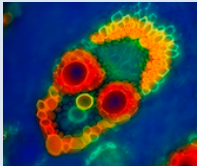
## 2011 Olympus BioScapes Digital Imaging Competition® Winners, Technical Merit Award and Honorable Mentions

HONORABLE MENTIONS IN ALPHABETICAL ORDER				
	HM	Dr. Frank Abernathy	9.8mb	Serum arrested mouse L-1210 cells engaged in spontaneous apoptosis (programmed cell death) after nutrient depletion and acid hydrolysis. Phase contrast microscopy. Frank Abernathy, Jamestown, OH, USA. Honorable Mention, 2011 Olympus BioScapes Digital Imaging Competition®.
	HM	Dr. Robert Berdan	1.3mb	Trout alevin (alevin is the second of four stages in the life cycle of a trout, when eggs hatch and the tiny fish begin to emerge). Stereomicroscopy. Robert Berdan, Calgary, Alberta, Canada. Honorable Mention, 2011 Olympus BioScapes Digital Imaging Competition®.
	HM	Ms. Lorraine Bloom	3.1mb	Dinosaur bone in thin section. Polarized light. Lorraine Bloom, University of Calgary Department of Geoscience, Calgary, Alberta, Canada. Honorable Mention, 2011 Olympus BioScapes Digital Imaging Competition®.
MOVIE 	HM	Dr. Hsiu-Ming Chang	MOVIE 62.3mb	Single neuron from <i>Drosophila</i> brain in 3D. Confocal microscopy, with two overlapping image stacks of 120-140 slices each. Hsiu-Ming Chang, Brain Research Center, National Tsing Hua University, Hsinchu, Taiwan. Honorable Mention, 2011 Olympus BioScapes Digital Imaging Competition®.
	HM	Dr. Douglas Clark	9.2mb	Weevil <i>Eupholus</i> , dried thorax scales, stack of 80 images. Darkfield. Douglas Clark, San Francisco, CA, USA. Honorable Mention, 2011 Olympus BioScapes Digital Imaging Competition®.
	HM	Dr. Elena Constantinescu	1.6mb	Rat brain tissue. Brightfield. Elena Lucia Constantinescu, Institute of Cellular Biology and Pathology, Bucharest, Romania. Honorable Mention, 2011 Olympus BioScapes Digital Imaging Competition®.
	HM	Mr. Mike Crutchley	6mb	Hydroid collected from kelp sample. Epi-illumination, image stack. Mike Crutchley, Pembrokeshire, Wales, UK. Honorable Mention, 2011 Olympus BioScapes Digital Imaging Competition®.
	HM	Dr. Julia Dibner	26.2mb	Developing bone (ossification) in a bird. Brightfield illumination. Julia Dibner, Novus International, Inc., Chesterfield, MO, USA. Honorable Mention, 2011 Olympus BioScapes Digital Imaging Competition®.



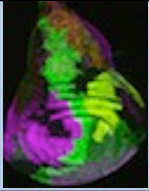
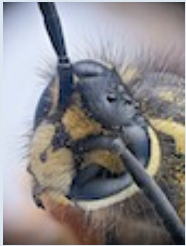
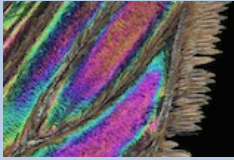
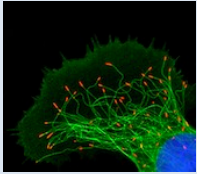

## 2011 Olympus BioScapes Digital Imaging Competition® Winners, Technical Merit Award and Honorable Mentions

	HM	Dr. Sandra Dieni	5.1mb	Immature mouse hippocampus, a region of the brain involved in learning and memory. Sandra Dieni, Institute of Anatomy and Cell Biology, Albert-Ludwigs University, Freiburg, Germany. Honorable Mention, 2011 Olympus BioScapes Digital Imaging Competition®.
	HM	Dr. Sandra Dieni	9.7mb	Adult mouse hippocampus, a region of the brain involved in learning and memory. Reactive astroglia (pale yellow) have proliferated and enlarged in response to neuronal activity over time. Confocal microscopy, Z-stack of 7 slices. Sandra Dieni, Institute of Anatomy and Cell Biology, Albert-Ludwigs University, Freiburg, Germany. Honorable Mention, 2011 Olympus BioScapes Digital Imaging Competition®.
	HM	Mr. John Dolan	64.4mb	Tintinnid ciliate of the marine plankton, <i>Petalotricha ampulla</i> . This preserved specimen (Lugol's fixed) was caught with its cilia fully extended. It is about 100 microns long. Differential interference contrast microscopy. John Dolan, Station Zoologique B.P. 28, Villefranche-sur-Mer, France. Honorable Mention, 2011 Olympus BioScapes Digital Imaging Competition®.
	HM	Mr. David Domozych	20.5mb	Green alga <i>Penium margaritaceum</i> . The cell wall is green and the chloroplast is represented by autofluorescence. Confocal microscopy. David Domozych, Department of Biology, Skidmore College, Saratoga Springs, NY, USA. Honorable Mention, 2011 Olympus BioScapes Digital Imaging Competition®.
	HM	Mr. Geir Drange	3.2 mb	Two damsel bugs ( <i>Nabis sp.</i> ) seemingly feeding on an aphid. Background is dried leaf of Norway maple ( <i>Acer platanoides</i> ). Focus stack of 120 images. Geir Drange, Asker, Norway. Honorable Mention, 2011 Olympus BioScapes Digital Imaging Competition®.
	HM	Dr. Fernán Federici	10.3mb	Corn plant tissue. Fernán Federici, University of Cambridge, Plant Sciences Department, Cambridge, UK. Honorable Mention, 2011 Olympus BioScapes Digital Imaging Competition®.
	HM	Dr. Fernán Federici and Dr. Anna Gordon	3.4mb	Wheat stigma infected with <i>Claviceps</i> fungus. Confocal microscopy. Fernán Federici, University of Cambridge, Plant Sciences Department, Cambridge, UK, and Anna Gordon, NIAB, Cambridge, UK. Honorable Mention, 2011 Olympus BioScapes Digital Imaging Competition®.

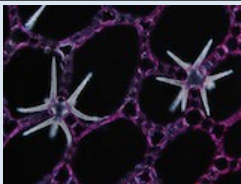
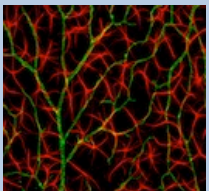

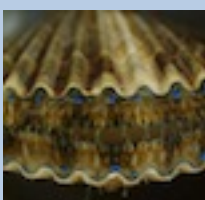
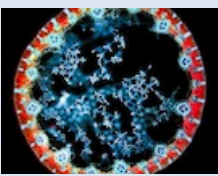
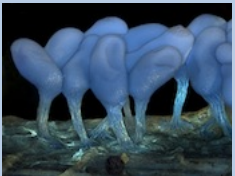
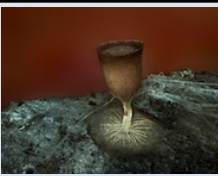

## 2011 Olympus BioScapes Digital Imaging Competition® Winners, Technical Merit Award and Honorable Mentions

	HM	Dr. Rita Fior	1.5mb	Eyes and optic tectum of five-day-old zebrafish larva that has a mutation causing retinal axons to project into the olfactory lobe. Confocal microscopy, 125-slice Z-stack. Rita Fior, Institute of Molecular Medicine, Lisbon, Portugal. Honorable Mention, 2011 Olympus BioScapes Digital Imaging Competition®.
MOVIE 	HM	Mr. Raphael Gaudin	MOVIE 15mb	MOVIE: HIV-1–infected human macrophage sensing its environment. Spinning disk confocal microscopy. Raphael Gaudin, Institut Curie, Paris, France. Honorable Mention, 2011 Olympus BioScapes Digital Imaging Competition®.
MOVIE 	HM	Dr. Marwan Ghabril and Dr. Clifford M. Babbey	MOVIE 15.1mb	Mouse liver. A 60x 3D intravital multiphoton video showing green fluorescence protein-expressing macrophages after lipopolysaccharide (LPS) injection. This movie, captured over a 30-minute period, shows the movement of macrophages (green cells) through the sinusoids. Marwan Ghabril and Clifford M. Babbey, Indiana University School of Medicine, Indianapolis, IN, USA. Honorable Mention, 2011 Olympus BioScapes Digital Imaging Competition®.
	HM	Mr. Michael Gibson	2.1mb	Protozoan <i>Elphidium crispum</i> found growing on the Dorset coast of England. Brightfield. Michael Gibson, Northampton, UK. Honorable Mention, 2011 Olympus BioScapes Digital Imaging Competition®.
MOVIE 	HM	Mr. Ralph Grimm	MOVIE 143.2mb	MOVIE: Cytoplasmic streaming in the cells of living <i>Elodea</i> (aquatic plant). Differential interference contrast microscopy. Ralph Grimm, Jimboomba, Queensland, Australia. Honorable Mention, 2011 Olympus BioScapes Digital Imaging Competition®.
	HM	Dr. Jerzy Gubernator	13.1mb	Forewing of the green tiger beetle <i>Cicindela campestris</i> . Reflected light microscopy. Jerzy Gubernator. Wroclaw, Poland. Honorable Mention, 2011 Olympus BioScapes Digital Imaging Competition®.
	HM	Mr. Gerd Günther (may also write as: Guenther)	1.9mb	Bacteria. Fluorescence. Gerd Guenther, Duesseldorf, Germany. Honorable Mention, 2011 Olympus BioScapes Digital Imaging Competition®.
	HM	Mr. Gerd Günther (may also write as: Guenther)	1.6mb	Stem section of <i>Fragesia sp.</i> , garden bamboo, showing a vascular bundle. Fluorescence. Gerd Guenther, Duesseldorf, Germany. Honorable Mention, 2011 Olympus BioScapes Digital Imaging Competition®.

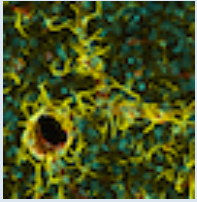
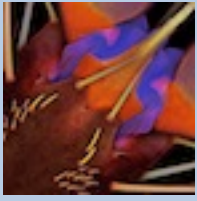
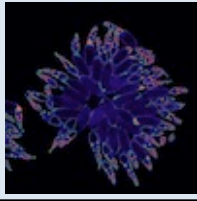


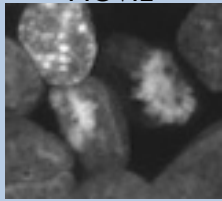

## 2011 Olympus BioScapes Digital Imaging Competition® Winners, Technical Merit Award and Honorable Mentions

	HM	Mr. Gerd Günther (may also write as: Guenther)	1.6mb	Small fern <i>Asplenium trichomanes</i> showing a sorus, a cluster of sporangia that produce and contain spores. Brightfield. Gerd Guenther, Duesseldorf, Germany. Honorable Mention, 2011 Olympus BioScapes Digital Imaging Competition®.
	HM	Mr. Christopher B. Jackson	9.9mb	Skeleton of a radiolarian, a single-cell protozoan with an intricate mineral skeleton. Brightfield imaging, extended depth of field. Christopher B. Jackson, Berne, Switzerland. Honorable Mention, 2011 Olympus BioScapes Digital Imaging Competition®.
	HM	Dr. Oguz Kanca	987kb	Fixed <i>Drosophila</i> third instar wing imaginal disc. Confocal microscopy. Oguz Kanca, Biozentrum Center for Molecular Life Sciences, University of Basel, Switzerland. Honorable Mention, 2011 Olympus BioScapes Digital Imaging Competition®.
	HM	Mr. Peter Kinchington	5.3mb	European wasp <i>Vespula germanica</i> , stack of 200 images. Note the discs of concave pollen on its hairs. In Australia's warm climate, entire nests of 100,000 stinging wasps can survive the winter and they have no local natural predators. The bane of picnickers, they are attracted to food and sweet drinks. Peter Kinchington, Mooroolbark, Australia. Honorable Mention, 2011 Olympus BioScapes Digital Imaging Competition®.
	HM	Mr. Charles Krebs	23.2mb	Mosquito wing. The iridescent colors are a natural phenomenon created by the structure of the transparent wings, similar to the colors in oil films and soap bubbles. Wing interference patterns have recently been described as a possible method to identify and distinguish among similar species. Darkfield illumination. Charles Krebs, Issaquah, WA, USA. Honorable Mention, 2011 Olympus BioScapes Digital Imaging Competition®.
	HM	Dr. Alexis J. Lomakin	250kb	<i>Xenopus melanophore</i> , showing microtubules, microtubule plus-ends and nucleus. Fluorescence. Alexis J. Lomakin, Howard Hughes Medical Institute, Carnegie Institution of Washington, Baltimore, MD, USA. Honorable Mention, 2011 Olympus BioScapes Digital Imaging Competition®.
	HM	Dr. Steve Lowry	3.9mb	Diatoms arranged as a bicycle. Steve Lowry, Portstewart, Co. Londonderry, UK. Honorable Mention, 2011 Olympus BioScapes Digital Imaging Competition®.

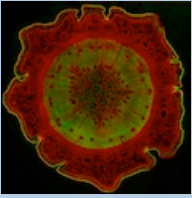
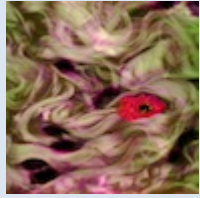

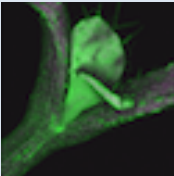
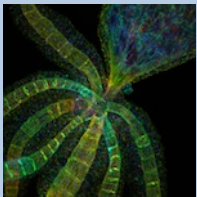

## 2011 Olympus BioScapes Digital Imaging Competition® Winners, Technical Merit Award and Honorable Mentions

	HM	Dr. Steve Lowry	10.1mb	Water lily <i>Nymphae alba</i> showing idioblast on transverse section of stem. Polarized light. Steve Lowry, Portstewart, Co. Londonderry, UK. Honorable Mention, 2011 Olympus BioScapes Digital Imaging Competition®.
	HM	Mr. Gabriel Luna	13.5mb	Mouse retina. Retinal astrocytes (red) and blood vessels (green) are visible. Confocal microscopy. Gabriel Luna, Neuroscience Research Institute, University of California, Santa Barbara, USA. Honorable Mention, 2011 Olympus BioScapes Digital Imaging Competition®.
	HM	Dr. Daniela Malide	11.7mb	NIH-3T3 connective tissue cells co-transduced with five fluorescent proteins. Confocal microscopy. Daniela Malide, National Institutes of Health, Bethesda, MD, USA. Honorable Mention, 2011 Olympus BioScapes Digital Imaging Competition®.
	HM	Ms. Kathryn Markey	27.1mb	Juvenile live bay scallop <i>Argopecten irradians</i> . Through research, scientists are trying to help restore scallop populations in Rhode Island. Kathryn Markey, Aquatic Diagnostic Laboratory, Roger Williams University, Bristol, RI, USA. Honorable Mention, 2011 Olympus BioScapes Digital Imaging Competition®.
	HM	Mr. Jan Martinek	6.2mb	Cross-section of bulrush ( <i>Juncus sp.</i> ) leaf, autofluorescing red (chlorophyll on external side of leaf) and blue (vascular bundles). Diameter of the stalk is approximately 3mm. Jan Martinek, Ostrov, Czech Republic. Honorable Mention, 2011 Olympus BioScapes Digital Imaging Competition®.
	HM	Dr. Dalibor Matýsek	4.8mb	Young sporangia of slime mold <i>Arcyria stipata</i> . Fluorescence. Dalibor Matýsek, Mining University - Technical University of Ostrava, Ostrava, Czech Republic. Honorable Mention, 2011 Olympus BioScapes Digital Imaging Competition®.
	HM	Dr. Dalibor Matýsek	4mb	Sporangium of the slime mold <i>Craterium minutum</i> . Fluorescence. Dalibor Matýsek, Mining University - Technical University of Ostrava, Ostrava, Czech Republic. Honorable Mention, 2011 Olympus BioScapes Digital Imaging Competition®.
	HM	Dr. Dalibor Matýsek	3.6mb	Sporangium of the slime mold <i>Physarum leucophaeum</i> . Fluorescence. Dalibor Matýsek, Mining University - Technical University of Ostrava, Ostrava, Czech Republic. Honorable Mention, 2011 Olympus BioScapes Digital Imaging Competition®.

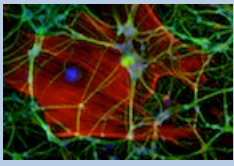
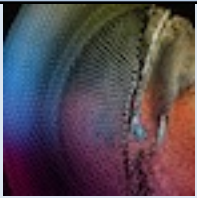
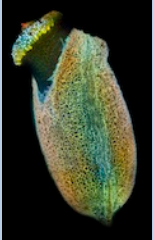


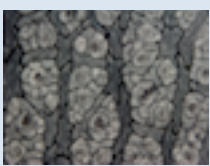

## 2011 Olympus BioScapes Digital Imaging Competition® Winners, Technical Merit Award and Honorable Mentions

	HM	Miss Madelyn May	11.1mb	Cerebral cortex of rat brain with astrocyte (yellow) endfeet wrapping around blood vessels (red). Cell nuclei are cyan. Confocal microscopy, spectral imaging with 50 Z-slices. Madelyn May, Rensselaer Polytechnic Institute, Troy, NY, USA. Honorable Mention, 2011 Olympus BioScapes Digital Imaging Competition®.
	HM	Dr. Jan Michels	12.6mb	Pretarsus of the third leg of a female drone fly ( <i>Eristalis tenax</i> ), ventral view. Confocal microscopy and autofluorescence. Jan Michels, Institute of Zoology, Christian-Albrechts-University of Kiel, Germany. Honorable Mention, 2011 Olympus BioScapes Digital Imaging Competition®.
	HM	Dr. Denise Montell	7.8mb	Fruit fly ( <i>Drosophila</i> ) ovary. Denise Montell, Johns Hopkins University, Department of Biological Chemistry Center for Cell Dynamics, Baltimore, MD, USA. Honorable Mention, 2011 Olympus BioScapes Digital Imaging Competition®.
	HM	Mr. James H. Nicholson	14.1mb	Underwater image of live coral <i>Montastraea annularis</i> . Brightfield with oblique fiber optic illumination. James Nicholson, NOAA/NOS/NCCOS Center for Coastal Environmental Health & Biomolecular Research, Fort Johnson Marine Lab, Charleston, SC, USA. Honorable Mention, 2011 Olympus BioScapes Digital Imaging Competition®.
	HM	Mr. James H. Nicholson	13.1mb	Underwater image of live coral <i>Montastraea annularis</i> . Note polyp tissue (green) around the mouth and base of the tentacles and zooxanthellae (red fluorescence from chlorophyll) in the tissue between polyps. Tentacles also are visible. Fluorescence microscopy. James Nicholson, NOAA/NOS/NCCOS Center for Coastal Environmental Health & Biomolecular Research, Fort Johnson Marine Lab, Charleston, SC, USA. Honorable Mention, 2011 Olympus BioScapes Digital Imaging Competition®.
MOVIE 	HM	Dr. James Orth and Dr. Rainer Kohler	MOVIE 655kb	MOVIE: Human xenograft tumor HT-1080 cells. Multiphoton microscopy. Used by permission from the American Association for Cancer Research: Orth and Kohler, <i>Cancer Res</i> 2011;71:4608-4616. James Orth, Harvard Medical School, Boston, MA, USA and Rainer Kohler, Massachusetts General Hospital, Charlestown, MA, USA. Honorable Mention, 2011 Olympus BioScapes Digital Imaging Competition®.
	HM	Mr. Nathan Pallace	60.8mb	Fluorescent image of <i>Tilia</i> tree. Nathan Pallace, Fountain Hills, AZ, USA. Honorable Mention, 2011 Olympus BioScapes Digital Imaging Competition®.

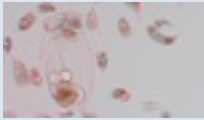
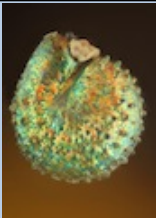
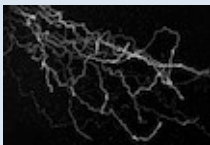

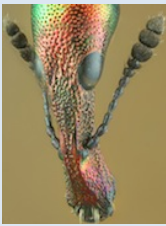
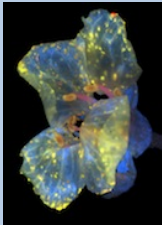
## 2011 Olympus BioScapes Digital Imaging Competition® Winners, Technical Merit Award and Honorable Mentions

	HM	Ms. Lauren Piedmont	10mb	Pine stem. Fluorescence. Lauren Piedmont, Harvard Medical School, Boston, MA, USA. Honorable Mention, 2011 Olympus BioScapes Digital Imaging Competition®.
	HM	Mr. Donald Pottle	12.6mb	Mast cell in human eye with conjunctivitis. This image shows a single mast cell invading conjunctival tissue in response to an inflammatory agent or pathogen. The mast cell contains vesicles of histamine (red dots). Mast cells are among the first cells of the immune system to react to the presence of an invading pathogen and they facilitate the movement of leukocytes (white blood cells) and other immune cells toward the site of infection. Donald Pottle, The Schepens Eye Research Institute, Boston, MA, USA. Honorable Mention, 2011 Olympus BioScapes Digital Imaging Competition®.
	HM	Dr. Janet Rollins	5.3mb	Fruit fly ( <i>Drosophila</i> ) sperm. Confocal microscopy. Janet Rollins, College of Mount Saint Vincent, Bronx, NY, USA. Honorable Mention, 2011 Olympus BioScapes Digital Imaging Competition®.
	HM	Dr. John Runions	30.2mb	<i>Arabidopsis</i> leaf primordia. The first two true leaves are emerging from the shoot apex, covered in sharp hairs (trichomes) to protect them from insects. Confocal microscopy. John Runions, Oxford Brookes University, Department of Biological and Medical Sciences, Oxford, UK. Honorable Mention, 2011 Olympus BioScapes Digital Imaging Competition®.
	HM	Dr. Andreas Schmidt-Rhaesa	2mb	<i>Halammohydra schulzei</i> , a hydra-type fresh-water cnidarian less than 1 millimeter long. Confocal microscopy. Andreas Schmidt-Rhaesa, Zoological Museum, University of Hamburg, Germany. Honorable Mention, 2011 Olympus BioScapes Digital Imaging Competition®.
	HM	Dr. Andreas Schmidt-Rhaesa	934kb	<i>Hymenolepis microstoma</i> , a tapeworm parasite, showing anterior end. Phalloidin staining shows the suckers, pharynx and part of the body-wall musculature. Confocal microscopy. Andreas Schmidt-Rhaesa, Zoological Museum, University of Hamburg, Germany. Honorable Mention, 2011 Olympus BioScapes Digital Imaging Competition®.

## 2011 Olympus BioScapes Digital Imaging Competition® Winners, Technical Merit Award and Honorable Mentions

	HM	Dr. Jan Schmoranz	44.5mb	Neuronal culture, fluorescence, six images stitched at 40x magnification. Jan Schmoranz, Freie University Berlin, Institute for Chemistry and Biochemistry, Berlin, Germany. Honorable Mention, 2011 Olympus BioScapes Digital Imaging Competition®.
	HM	Dr. Igor Siwanowicz	5.3mb	Eye of a damselfly. The image reveals the regular, crystal-like hexagonal lattice of the eye's elements. Projection of confocal stack, 20x objective. Igor Siwanowicz, Max Planck Institute for Neurobiology, Munich, Germany. Honorable Mention, 2011 Olympus BioScapes Digital Imaging Competition®.
	HM	Mr. Daniel Stoupin	94.8mb	Plant seed from freshwater pond near Moscow. Fluorescence. Daniel Stoupin, Moscow, Russian Federation. Honorable Mention, 2011 Olympus BioScapes Digital Imaging Competition®.
	HM	Mr. Viktor Sýkora	16.23mb	Detail of a pod of flowering legume <i>Scorpius muricatus</i> . Stereomicroscopy, darkfield illumination. Viktor Sýkora, Hyskov, Czech Republic. Honorable Mention, 2011 Olympus BioScapes Digital Imaging Competition®.
	HM	Mr. Tim Tiebout	70.9mb	Cat tooth in cross section, showing the membrane surrounding the outside of the tooth. Darkfield illumination. Image composed of 38 images. Tim Tiebout, Rochester Institute of Technology, Rochester, NY, USA. Honorable Mention, 2011 Olympus BioScapes Digital Imaging Competition®.
	HM	Mrs. Magdalena Turzanska	4.2mb	Epidermis of <i>Sedum sp.</i> , a genus of flowering plants with succulent leaves. Brightfield. Magdalena Turzanska, Wroclaw, Poland. Honorable Mention, 2011 Olympus BioScapes Digital Imaging Competition®.
MOVIE 	HM	Mr. Wim van Egmond	MOVIE 105.5mb	MOVIE: <i>Vorticella</i> (bell-shaped protozoans), ciliates attached to filamentous alga. Their stalks contract with one of the fastest-known movements in nature. Differential interference contrast microscopy. Wim van Egmond, Rotterdam, The Netherlands. Honorable Mention, 2011 Olympus BioScapes Digital Imaging Competition®.

## 2011 Olympus BioScapes Digital Imaging Competition® Winners, Technical Merit Award and Honorable Mentions

<p>MOVIE</p> 	HM	Mr. Wim van Egmond	MOVIE 119.6mb	MOVIE: Rotifers (stereoscopic 3D effect - view with red and blue anaglyph glasses). Brightfield, red and blue filters. Wim van Egmond, Rotterdam, The Netherlands. Honorable Mention, 2011 Olympus BioScapes Digital Imaging Competition®.
	HM	Ms. Yanping Wang	16.4mb	Purslane ( <i>Portulaca</i> ) seed. Stereomicroscopy. Yanping Wang, Beijing Planetarium, Beijing, China. Honorable Mention, 2011 Olympus BioScapes Digital Imaging Competition®.
	HM	Dr. Richard Wingate	397kb	“Lost” axons - chick interneurons labeled with green fluorescent protein have been transplanted from older into younger embryos. Encountering unfamiliar territory, the axons create trails as they try to recognize their pre-programmed trajectory. Confocal microscopy. This image was first published in <i>Developmental Biology</i> 297, 508-21. Richard Wingate, MRC Center for Developmental Neurobiology, King’s College London, England, UK. Honorable Mention, 2011 Olympus BioScapes Digital Imaging Competition®.
<p>MOVIE</p> 	HM	Mr. Fengzhu Xiong	MOVIE 77.1mb	MOVIE: Zebrafish embryo development from a 2-cell egg to fish larva. Confocal microscopy. Fengzhu Xiong, Megason Lab, Department of Systems Biology, Harvard Medical School, Boston, MA, USA. Honorable Mention, 2011 Olympus BioScapes Digital Imaging Competition®.
	HM	Mr. Chao Zhang	5mb	Curculionidae (snout beetle). Interference contrast. Chao Zhang, Beijing Language and Culture University, Beijing, China. Honorable Mention, 2011 Olympus BioScapes Digital Imaging Competition®.
	HM	Ms. Christina Zimmerman	26mb	Sweet alyssum flower ( <i>Lobularia maritima</i> ). Z-Stack of 10 fluorescence images. Christina Zimmerman, Merritt College Microscopy Program, Oakland, CA, USA. Honorable Mention, 2011 Olympus BioScapes Digital Imaging Competition®.