

# NEWSLETTER FROM THE DEPARTMENT OF ANATOMY AND NEUROBIOLOGY

Boston University School of Medicine · Division of Graduate Medical Sciences



VOLUME 1, ISSUE 4  
APRIL/MAY 2004

## DR. JULIE SANDELL APPOINTED AS NEW VICE CHAIR

By Dr. Mark Moss

Beginning March 8, 2004, Dr. Julie Sandell will serve as the Department of Anat-



*Dr. Sandell pictured here at her laboratory microscope.*

omy and Neurobiology Vice Chair. Over the past several years, the Department has grown significantly to include at present 27 full-time faculty, 35 graduate students, 6 post-doctoral students, 43 administrative and research staff, and 5 active affiliated faculty. Needless to say, the number of courses, programs, committees, grants and research units has increased accordingly.

Julie has been a member of the department for 13 years. During this period she has served in virtually every role in the Department's affairs including committee service for faculty recruitment, graduate admissions, faculty development, and most recently, the Carnegie Initiative leadership group. She has been a great ambassador for the Department through her participation in the Responsible Conduct of Research Series, as our representative for the Cell and Molecular Biology

program, and most notably, as chair of the Faculty Affairs committee. She has served ably as a course director in our Neurosciences course, is highly respected for her teaching in the medical and graduate school, and has been the recipient of a major teaching award. Julie has also maintained an active research program in visual system neuroscience since her arrival to the Department.

Julie will make an invaluable contribution to helping manage our many departmental activities. She has graciously agreed to serve in this capacity and is prepared to help wherever needed, as she has done whenever called upon in the past.

*Dr. Mark Moss has been the Chairman of the Department of Anatomy and Neurobiology since 1998. He is also a co-director for the Laboratory of Cognitive Neurobiology.*

## DR. BERTRAM PAYNE: TEACHER, COLLEAGUE, MENTOR, FRIEND

By Dr. Deborah Vaughan

Everything we do professionally has to do with educating. Whether in the classroom, at scientific meetings, through our publications, or conversation, we are always educating one group of people or another. Such is the assertion of Dr. Bertram Payne, Professor of Anatomy and Neurobiology. It is impossible to have a discussion with Dr. Payne without learning something on the topic of science, geography, history, philosophy, or American Folk Music, his favorite music genre.

Dr. Payne was born in Egypt where his father was stationed in the British Army. Before he was 10 years old, he had lived in Libya, Germany, England, Singapore, and Malaya, and his family always traveled by ship between postings giving him a very worldly early education. Eventually he settled in central England, and he obtained an undergraduate degree in zoology at Durham University, where he remained to obtain his D.Sc. degree. He remembers the first paper he read in 1974, one describing the structure of the optic nerve in *Xenopus laevis* (a frog), written



*Dr. Payne works with Ph.D. graduate Margaret MacNeil in lab.*

in 1961 by A. Peters and R.M. Gaze. Little did he know then that he would find himself in the Department of the very same Alan Peters in America one decade later.

As a student he was fascinated by brain and neural connections, but formation of connections was more exciting. This interest led to his doctoral work on the development of the visual system of

*(story continued on page 6)*

*Photo by Claire Folger*

## STUDENT SPOTLIGHT: MONICA PESSINA

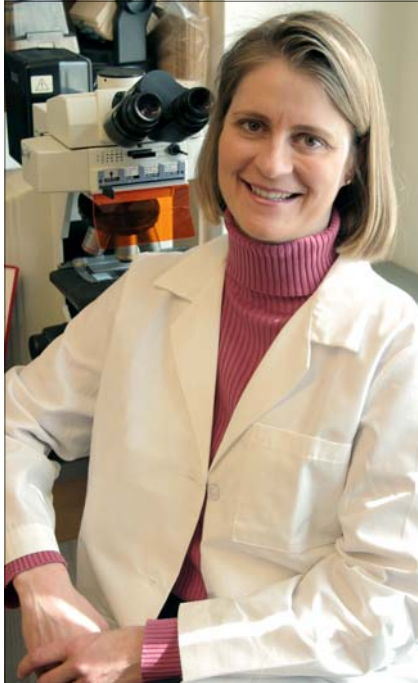
By Dr. Lawrence Zoller

Monica was born in Fairfield, Connecticut, to Alan and Elizabeth Smith. She is the youngest of three children. Her sister (Linda) and brother (Paul) are both engineers.

As a teenager Monica volunteered in hospitals and as a result became interested in the health sciences. In pursuit of this goal she enrolled in the Sargent College of Health and Rehabilitation Science of Boston University and graduated in 1990, *magna cum laude*, with a B.S. in Occupational Therapy.

For the next seven years after graduation she employed her clinical skills at the Massachusetts General Hospital and then as Senior Therapist and Director of Rehabilitation at the Shriners Burns Institute. During this period of time she was smitten by the "teaching bug" and to that end earned her Masters in Education at Northeastern University in 1997. While working at Shriners, she gave guest lectures, primarily on principles of burn rehabilitation, at Bay State College, Endicott College, Tufts University and Northeastern University. In 1997 Monica returned to Sargent College but this time as a full time Clinical Instructor where she taught courses in Kinesiology, Physical Disabilities and Orthopedic Pathology, amongst others.

Photo by Claire Folger



*Monica reviews hundreds of slides to determine changes in tissue morphology.*

However, she realized that in order to attain a higher academic rank and to be able to teach in other settings, she would need to obtain a Ph.D. In 1999 she began her studies in the Department of Anatomy and Neurobiology at Boston University School of Medicine.

During her tenure in the Department of Anatomy and Neurobiology she has taught in numerous courses. Her research, under the guidance of Drs. Richard Hoyt and Abdul Traish, is on the role of hormones in modulating vaginal tissue morphology, innervation, microvasculature, and hormone receptor expression. She has already presented some of the results of this research at the International Society for the Study of Women's Sexual Health (Amsterdam, October, 2003).

Monica is a wonderful mix of drive, humor and compassion. She and her husband, Craig, have a cute little daughter, Emily, who provides them with hours of entertainment. They all live in West Newbury in a wonderful house with a cat and backyard chickens. The chickens provide them with an ample supply of eggs. Her hobbies include Irish Music that she can produce on her own as she plays accordion with her husband who plays guitar and her brother who plays fiddle and mandolin. After graduating, Monica hopes to obtain a faculty position so that she can continue to indulge her love of teaching while continuing her clinical practice.

*Dr. Lawrence Zoller is an Associate Professor and the Ombudsman in the Department of Anatomy and Neurobiology.*

## JOURNAL CLUB ADDS NEW ETHICS COMPONENT

By Dr. Julie Sandell

Often students and faculty do not talk explicitly about the dilemmas that are inevitable in acquiring and using data, maintaining collaborations, navigating between conflicting loyalties, and still making steady progress in research careers. Thus, the Department of Anatomy and Neurobiology has devoted six sessions of Journal Club this spring to discuss ethical issues that arise in the conduct of scientific research. These sessions will use a case-based approach, including both fictional cases and reports from the Office of Research Integrity to illuminate the problems and their resolution. Students will work in teams to choose cases and create hypothetical cases to be discussed at subsequent ses-

sions. After the last session all students will be asked to provide a brief written critique of the experience, with suggestions for improvements and possible ways to expand the experience into a course that all GMS students might find useful and interesting. The following is a schedule of topics to be covered:

**MARCH 5:** CONDUCT, MISCONDUCT AND COMMUNICATION

**MARCH 19:** THE PAIN AND PLEASURE OF COLLABORATION

**APRIL 9:** PUBLISHING AND PEER REVIEW

**APRIL 16:** CONFLICT OF INTEREST: MONEY IS THE LEAST OF OUR PROBLEMS

**MAY 7:** SOME "SUBJECTS" ARE "SACRIFICED" THE USE OF HUMANS AND ANIMALS IN RESEARCH

**JUNE 4:** YOURS, MINE AND THEIRS: INTELLECTUAL PROPERTY AND RESEARCH REAGENTS

### THESIS DEFENSE

*Jarrett Rushmore*

*Alan Peters Seminar Room  
Tuesday, April 6, 2004  
12 Noon*

*Kirsten Nielsen*

*Alan Peters Seminar Room  
Thursday, April 8, 2004  
10 AM*

*Monica Pessina*

*July 2004  
Details to Follow*

## LAB MANAGER ROB BOUCHIE STRENGTHENS BODY DONOR PROGRAM

By Dr. Todd Hoagland

Rob Bouchie is a consummate professional, and as the anatomy lab manager and anatomical gift coordinator for the School of Medicine, he has brought a new standard of excellence, not only to the body donor program, but also to all classes that use cadaveric materials. Rob is a compassionate individual that manages all aspects of the lab masterfully. He can be found comforting students through their initial experiences in Gross Anatomy, and he makes sure that every student complies with all rules and regulations while in the lab. Students gravitate toward Rob due to his friendly demeanor, approachable style, and ever-present optimism. As one student put it on their course evaluation, "Rob is the man!"

Rob graduated from Gloucester High School in 1985 before going on to accept a scholarship from Boston University (SMG'89) to play football. He was a business major at BU; it wasn't until years after graduation that he decided to pursue a career in mortuary science. As a football player for the Terriers, Rob learned about teamwork and discipline, but the crushing hits he doled out as a defensive tackle stand in stark contrast to the kind and genial man we know. Growing up in a fishing town inspired Rob's love for the water, so in the summer of 1989 he signed on for a 32-day deep-sea fishing trip. Maybe it was the rigors of this job or the knowledge of the dangers involved, but upon arrival home he landed a position with a pharmaceutical company selling cardiology drugs to physicians, a job which, over the years, exposed him to many areas of medicine. Then in the summer of 1997, a friend suggested that with Rob's personality and caring nature he would make a great funeral director. At this point his desire to pursue mortuary science as a career was realized. Rob started his mortuary science studies at the



New England Institute in 1997. Around the same time he married Gillian Harnish who he first met at a summer camp when he was 11 years old. He graduated *summa cum laude* after taking classes in pathology, anatomy, microbiology, thanatology (the biology and psychology of dying), and embalming. He sought a job as an intern at the Campbell Funeral Home in Beverly, Massachusetts, and was hired on the spot. Near the end of his internship at the funeral home, Rob went on a call to Children's Hospital and was so impressed by the academic environment that he inquired about job opportunities. He was directed to human resources and once again was offered a job immediately, this time as the morgue manager and pathology assistant at Children's Hospital. Two years later he was lured to the Department of Anatomy and Neurobiology at BUSM and now plays a crucial role in the gross anatomy courses.

Rob has been proactive in making sure the importance of the anatomical gifts program is understood. He led the effort to make a video for first year medical and

anatomy students that answers many of the most commonly asked questions regarding body donation. The video entails Rob asking questions to a future donor who offers final words for the students: "treat me with respect and learn all that you can." This powerful message resonates with the class as the theme of respect and professionalism are reinforced all semester. The survival of any dissection based gross anatomy course is ultimately dependent on the altruistic individuals who donate their bodies to medical science education. The gift of oneself, after life has ceased, is extraordinarily special. Anatomy can be learned from books and electronic computer aids, but the visceral feeling experienced, the teamwork learned, and the compassion gained from working on a real body cannot be replaced. The decision to donate via the anatomical gift program does not come easy for most, but after speaking to Mr. Bouchie, prospective donors know that they will be treated with the utmost of care. This comforting fact coupled with the knowledge that a donation will directly benefit medical or dental student education makes the choice much easier. Rob has been a major reason for the success of this program, and for the first time in over 40 years our number of donors may actually satisfy the educational needs of our teaching endeavors.

Rob's attention to detail, commitment to student education, and his ethical fortitude have made him a perfect fit for the lab manager job. His efforts are appreciated by all those involved in teaching gross anatomy. He is kind and giving to students, staff, donor families, and everyone around the medical school. In short, Rob is the man!

*Dr. Todd Hoagland is an Assistant Professor of anatomy and neurobiology, and feels lucky to work with the gregarious Rob Bouchie.*

### SPECIAL ANNOUNCEMENTS

**10TH ANNUAL RUSSEK STUDENT ACHIEVEMENT DAY**  
Hiebert Lounge, Thursday, April 22, 2004, 9am - 5pm

**ANNUAL GIUSEPPINA RAVIOLA MEMORIAL SEMINAR**  
Alan Peters Seminar Room, Friday, May 14, 2004, 12:30pm

**ANNUAL DEPARTMENTAL RETREAT**  
Warren Conference Center, Friday, May 28, 2004, 8am - 6pm

### SPECIAL RECOGNITIONS

**DR. TARA MOORE**  
Promoted to Assistant Professor

**DR. GENE BLATT**  
**DR. JEAN-JACQUES SOGHOMONIAN**  
Promoted to Associate Professor

**DR. DEBORAH VAUGHAN**  
Promoted to Full Professor

*(Payne story continued from page 1)*

*Xenopus*. The research was largely neuro-physiological in design, but he realized very quickly that the best interpretation of physiological data required knowledge of underlying anatomy. He completed his dissertation in 1977; it was based on neurophysiology and quantitative and qualitative light and electron microscopy of the optic nerve and tectum.

A fellowship from the Royal Society allowed him to move on to the University of Kassel in Germany where he developed methods to record from neurons in awake, behaving toads. However, it was his latent love of American Folk music that convinced him to take a subsequent postdoc position at the Medical College of Pennsylvania where he began his work on the anatomy and electrophysiology of cat primary visual cortex.

In 1984 Dr. Payne joined our Department where he continued this line of investigation. He combined simultaneous recording of visual responses of multiple groups of neurons to visual stimuli with a cooling deactivation method to temporarily silence selective input populations of neurons. The cooling method was then refined for use in the behaving cat to test for localization and reorganization of cerebral function after lesions. This approach opened many doors.

Although proud of his internationally recognized contributions to our understanding of functional organization of the mammalian visual system, Dr. Payne is clearly most proud of his family. He and his Belgium-born wife Monique are the parents of beautiful, pixyish 4 1/2 year old Alice and her already-studious 2 3/4 year old brother Oliver.

Dr. Payne has been funded without interruption since his arrival at BUSM. Currently he is the Principal Investigator for three R-01 grants with a current value totaling \$6 million. His laboratory in the CABR building is presently staffed by a collection of "first class people": a doctoral student (Jarrett Rushmore), a research associate (Antoni Valero-Cabre), five research techs, and an administrative assistant.

Indeed Dr Payne embodies his belief that good researchers make good educators. He is teaching us a great deal about mammalian vision.

*Dr. Deborah Vaughan is currently a Professor of Anatomy and Neurobiology, Assistant Dean of Admissions at Boston University Medical School and course director of Medical Histology. She has had the pleasure of working with Dr. Payne for 20 years.*

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The official newsletter of the Department of Anatomy & Neurobiology at Boston University School of Medicine

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*Special thanks to Dr. Moss and Dr. Soghomonian for their support and encouragement in the production of this newsletter. Also thanks to our contributors Dr. Todd Hoagland, Dr. Julie Sandell, Dr. Deborah Vaughan, and Dr. Larry Zoller. Special thanks to Claire Folger for her help with the photography.*

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