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## President's Welcome



I am pleased to introduce the second edition of the MICCAI Society newsletter. The last year has seen the Society expand its visibility and support for our research community in a number of ways. In a new effort to promote research meetings outside of the main annual MICCAI conference and satellite workshops we now offer MIC and CAI meeting organisers the opportunity to be sponsored or endorsed by the Society – this has led to 9 independent meeting endorsements in 2014. Our social network presence is growing fast – the Society Facebook membership was 652 at last count and you are strongly encouraged to join.

The Student Society has some new faces running it, and with full support from the Society (and sponsorship of prizes!) is running an Educational Challenge event at the MICCAI Conference in Boston for the first time. We look forward to hearing how this goes.

Finally, as many of you know, Medical Image Analysis journal has been an official journal of the MICCAI Society for some years and is a very well respected high quality publication outlet for research in our field. We are delighted to announce a new journal association with the International Journal of Computer Assisted Radiology and Surgery which has a clinical translational research remit closely aligned with the interests of the CAI and robotics component of MICCAI.

For those of you joining us in Boston in September, we look forward to seeing you then. Those of you who cannot attend this year we will miss you, but do stay in touch with the society via social networking and e-correspondence.

Alison Noble, [alison.noble@eng.ox.ac.uk](mailto:alison.noble@eng.ox.ac.uk)

## The MICCAI Board Activities

The main concern of MICCAI Board of Directors is to ensure that the conferences run smoothly. Dr. Wiro Niessen, the Board's Executive Director states that "MICCAI is such a great conference that people take pride in organizing it". Other responsibilities of the Board include maintaining consistent budgets year to year. The Board is looking to offer more year-round privileges to Society members. They are considering the possibilities of hosting smaller satellite conferences or summer schools and workshops by and for MICCAI members. They are also working to put more content on the website, including challenge results, upcoming opportunities for students or even news of cutting-edge research that is relevant to the Society. The main question they seek to fulfill is: What benefits students and members most?

Dr. Niessen believes that one of the hardest barriers to overcome is the lack of patience because every Board member has great ideas for the society to succeed, but it is easy to forget that the board is volunteer run and time



### The MICCAI Board Activities Cont'd

is a constraint. The clear objective of the Board is to bring value to its members. Each and every Board member is “enthusiastic about this community and its prospects”. Through and through, MICCAI “is an organization for and by researchers” and the Board works hard to keep it that way.

*MICCAI Board of Directors – Executive Director*

Wiro Niessen, Ph.D. (Written by Eileen Sung)

### Reflections Upon the Society's 10th Anniversary!



Dr. Gabor Fichtinger has been heavily involved with the society since its inception 10 years ago in 2004. He was the 2011 MICCAI Conference chair in Toronto, Canada, making him a perfect candidate to reflect upon the society's growth this past decade. He emphasizes its success in 10 short years. Dr. Fichtinger revealed that the Society was created as a modest way to keep the MICCAI family together as a legal entity. The first MICCAI conference in 1998 was only a three day affair, then in 2000, a single day of workshops was introduced which had few participants. Now, the Society works to hold a yearly conference with more than 1000 attendees, over 800 submissions and additionally offers at least 30 workshops, challenges and tutorials. With its acceptance rate of 30%, MICCAI is one of the top conferences in its field. Not only has the conference grown in population, but the Conference Proceedings have also become highly cited by top journals such as MedIA and IEEE's Transactions on Medical Imaging.

Despite the triumphs of the Society's first ten years, we must look forward to the next ten years as well. Dr. Fichtinger tells us that one of the Society's biggest goals is to hold more than only one event a year to bring more benefits to its members year round: “We want to support more summer schools and workshops”. Another objective is to “to hand over the baton to the next generation”. Dr. Fichtinger thinks that to “keep [the conference] dynamic”, we must “keep it young and support the young ones; bring in new talent”. As such, junior faculty have become increasingly involved with the organization of workshops and the MICCAI Student Board was founded in 2011 to advise the Board of Directors what is beneficial to students. Now the Student Board has expanded to run events that allow young investigators to learn from and network with senior faculty throughout the year. Dr. Fichtinger believes this is “a very significant change, and a good one”.

However, the consistent characteristic brings people back year after year is its familial ambience. MICCAI prides itself on the tight-knit community it has built over the years. Dr. Fichtinger describes each conference as comparable to a big reunion, making the 5 days not only educational but also thoroughly enjoyable. He reminisces on the Palm Springs conference in 2005 where his group rented out an apartment and slept in sleeping bags. The highest hope is to keep the community together, adapt to the evolving research of Medical Imaging, and have faith that people will continue to hold the MICCAI Society in esteem and affection.

*MICCAI Society – Secretary, Awards Coordinator*

Gabor Fichtinger, Ph.D. (Written by Eileen Sung)

### “The MICCAI Society is Near and Dear to My Heart”



Upon this 10th Anniversary of the organization of the MICCAI Society, I welcome this opportunity to reflect upon the past decade of progress and challenges that have emerged from the Society over these years. As most regular MICCAI Society members know, the MICCAI Conference Series was started in 1998 by combining three popular conferences, namely VBC, MRCAS and CVRMed. These three conferences were being held regularly throughout the early 1990s and were attended by a fairly large overlapping group of some of the best scientists, engineers, physicians, surgeons, and educators involved in the field. Upon the decision to consolidate the three separate conferences, an issue arose around the name of the new Conference Series. After some wrestling with some ideas, we converged to a title that, in my view, still today accurately reflects the constituent disciplines and topics of the current Medical Image Computing and Computer Assisted Intervention Conferences.

The MICCAI Society has evolved into a robust, highly regarded organization that is a friendly harbor to the many vessels of multi-disciplinary research, development, clinical translation and clinical utility, which have so rapidly accelerated over the past decade. Before the Society was officially organized in 2004, the MICCAI Conference series was held annually with different “volunteer faculties” hosting and operating the conference each year. There evolved an unspoken goal to make each conference better and bigger than the last. While this healthy “competition” continues today, the continued success is primarily due to the deep and abiding commitment of members of the MICCAI Society. I anticipate the day when the Society will have sufficient resources to more formally assume full responsibility for the annual Conference Series – its organization, financing, and outreach.

One of the main issues for the MICCAI Society over the years has been the ratio of participants who might be characterized as more “MIC” oriented versus the participation of those who are more “CAI” oriented. My view does not resonate with this concern nor characterization. The MIC and the CAI are intended to come together as one whole, not separate parts. Over the years, outstanding pioneers and leaders in both medical image computing and computer assisted interventions have joined the Society and contributed mutually to its success in ways that have strengthened and enhanced both the Society and Conference Series.

The publications of the MICCAI Society including its Conference Proceedings will continue to have an increasingly positive impact in the quality of healthcare by advancing both the science and art of medicine. We can be proud of this significant heritage and of the drastic growth the MICCAI Society has experienced over the past decade. My hat goes off to those individuals who have given so much to realize MICCAI, a virtual Camelot in our professional world. These noble knights include the current Fellows of the MICCAI Society. I encourage all current MICCAI disciples and apprentices to continue paving the way as you stand in the wings to receive these same honors and accolades sometime during the next decade of the reign of the MICCAI Society.

I have been attending professional meetings in the field of medical image computing and computer assisted intervention for more than 40 years. However, the annual MICCAI Conferences have long since become my “must go to” meeting. There is no other meeting for me that compares in quality, diversity, excellence, and



originality. One of the most enjoyable aspects is the cooperative collegiality that has formed within the Society. The faithful scientists and physicians who attend MICCAI regularly not only respect each other but they also really like each other! MICCAI is truly the best professional meeting each year for me and for my students.

*MICCAI Society – Founding Member, 2009 Fellow, Elections Officer, Consultant to the Board*  
Richard A. Robb, Ph.D.

### The MICCAI Student Board

The MICCAI Student Board (MSB) aims to represent students in the MICCAI community. It acts to maintain and encourage student interaction, involvement, and education within the community, and acts as a point of contact between students and the MICCAI Board. The MSB maintains both casual and professional social networking groups for student interaction throughout the year. In conjunction with every MICCAI conference, the MSB organizes social and professional events aimed at student attendees. This year, for the first time, the Board is organizing an educational challenge to encourage the community to create educational videos benefiting MICCAI students. The Student Board meets throughout the year on a monthly basis and maintains communication via email to prepare and maintain the groups, events, and challenges.

#### MICCAI Events

The professional event allows students to interact directly with academic and industry professionals, allowing them to learn about possible future career options, and to create connections. The event is a mixture of panel discussions and small group discussions to allow for various levels of interactions. Students have found the event to be extremely informative in the past. The social event gives students attending MICCAI an opportunity to explore a local attraction in a social setting with their peers. At the upcoming MICCAI, the professional event will be on Monday, September 15th while the social event will be held on Friday, September 19th.

#### The MICCAI Educational Challenge

In 2014, for the first time, the MSB is organizing the MICCAI Educational Challenge. Members from the MICCAI community are invited to create and submit educational videos focusing on fundamental concepts or techniques relevant to the MICCAI field, including but not limited to registration, segmentation, visualization, atlases, machine learning, inference, or software. The videos should help students entering the field of medical imaging to understand the core concepts. The ultimate goal is to encourage members of the MICCAI community to create a corpus of knowledge for current and future students through educational videos. On the first day of MICCAI 2014, a lunch session open to all attendees will be held for the challenge. Awards for the best entries will be announced on the last day of the conference.

The MSB continues to explore new ways to advocate for and help the student body of the MICCAI community. Please feel free to contact us with any suggestions or questions at [miccaistudentboard@csail.mit.edu](mailto:miccaistudentboard@csail.mit.edu)

Adrian Dalca - President  
Lena Filatova - Professional Student Events officer  
Duygu Sarikaya - Public Relations Officer  
Bernhard Fuerst - Student Communications and Social Events Officer  
Hakim Achterberg - Advisory member

Kristin McLeod - Advisory member  
Maxime Taquet - Advisory member  
Sinara Vijayan - Advisory member



### Upcoming MICCAI Society Endorsed Events

#### *Pattern Recognition in Neuroimaging: June 4-6, 2014 (Tübingen, Germany)*

Multivariate analysis of neuroimaging data has gained ground very rapidly in the community over the past few years, leading to impressive results in cognitive and clinical neuroscience. This 4th international workshop focuses on multivariate statistical image analysis and machine learning methods for analyzing brain images, and their applications in studies aiming to understand complex functional and structural imaging patterns of the brain in normal and diseased populations. ([www.prni.org](http://www.prni.org))

#### *Symposium on Statistical Shape Models and Applications: June 11-13, 2014 (Delémont, Switzerland)*

Shape will bring experts from industry and academia to promote the usage of statistical shape modeling techniques in industrial applications. Several medTech companies will present their latest work and insights on statistical shape models. Join our tutorials for a hands-on experience on how to use and incorporate open-source software such as Statismo into your software pipeline. (<http://www.shapesymposium.org>)

#### *International Conference on Information Processing in Computer Assisted Interventions: June 28th, 2014 (Fukuoka, Japan)*

IPCAI is a premiere international forum for technical innovations, system development and clinical studies in computer assisted interventions. IPCAI will include papers presenting novel technical concepts, clinical needs and applications as well as hardware, software and systems and their validation. (<http://www.ipcai.org>)

#### *The Workshop on Biomedical image Registration: July 7-8, 2014 (University College London)*

WBIR aims to bring together leading researchers in the area of biomedical image registration to present and discuss recent developments in the field. The format of the two-day workshop will include both oral and poster presentations and ample opportunities for discussion. The proceedings of the conference will be published in a volume of the Springer's Lecture Notes in Computer Science series. (<http://wbir2014.cs.ucl.ac.uk>)

#### *IEEE TMI – Special Issue on Spine Imaging, Image-based Modeling, and Image Guided Intervention: Manuscript Submission Deadline - July 15, 2014*

Spine disorders trigger various and severe problems which considerably reduce patients' quality of living, and cause a huge burden of morbidity and financial cost to society. Spine imaging is increasingly important in diagnosis, detection, prognosis, intervention, therapy, and treatment of spine related diseases or conditions. This special issue is intended to highlight the state-of-the-art, emerging challenges, and innovative approaches in spine imaging, image analysis, and image guided intervention. (<http://www.ieee-tmi.org/CallForPapers.html>)

#### *“Medical Imaging meets Computer Vision” Summer School: July 28 - Aug. 1, 2014 (Favignana, Sicily, Italy)*

This new International Medical Imaging Summer School aims to provide both an objective and clear overview and an in-depth analysis of the state-of-the-art research at the interface of Medical Imaging and Computer Vision. The courses will be delivered by world-renowned experts in the field, from both academia and industry. Participants will also have the opportunity to present the results of their research, and to interact with their scientific peers, in a friendly and constructive environment. ([iplab.dmi.unict.it/miss14](http://iplab.dmi.unict.it/miss14))



## Historic Conference Timeline

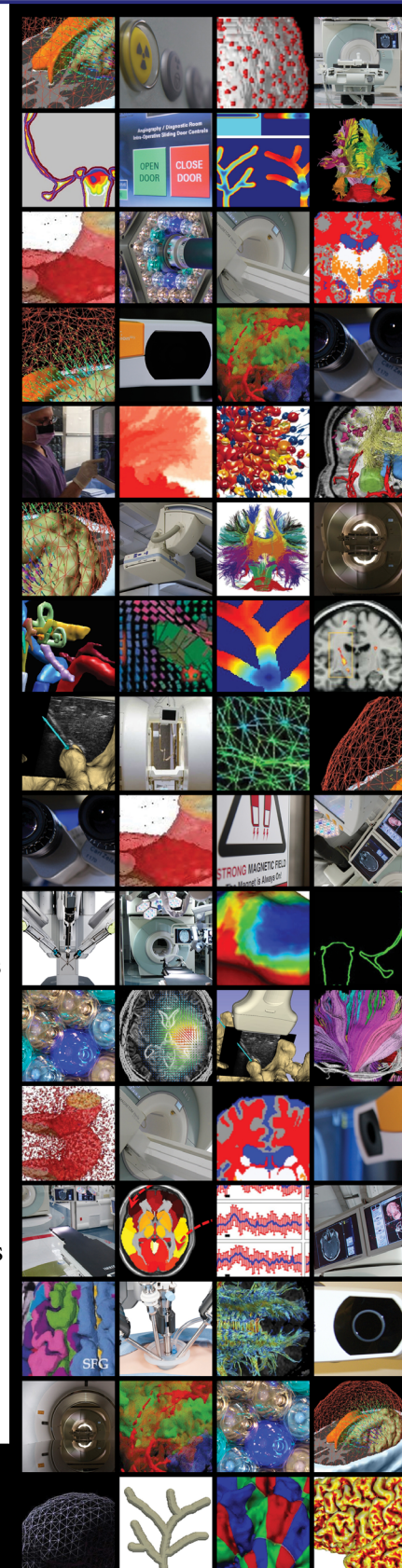


## MICCAI 2014 - Message from the Chair

MICCAI 2014 will take place at MIT and Harvard Medical School on September 14-18, 2014. We look forward to welcoming you at the place of the first MICCAI meeting that happened 16 years ago. As has become a tradition, we are introducing a few changes to improve the scientific program, including a completely new educational challenge open to the entire MICCAI community. We also hope you will enjoy the social program; the highlights include a MICCAI premier of the only blue grass band in the world led by a Harvard Medical School professor, an outing to a bowling alley, and tours of research laboratories in the Boston area. We encourage you to check the website for updates, submit papers, attend the conference, and help us celebrate the 16th anniversary of the MICCAI meeting and 10th anniversary of the MICCAI Society!

Polina Golland  
2014 MICCAI General Chair

**~ Please be Advised that Registration for the 2014 Medical Image Computing and Computer Assisted Intervention Conference is Now LIVE ~**



# MICCAI 2014 BOSTON

## Acknowledgements

Many heartfelt *Thank you's* to everyone who contributed to this second issue.

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Sinara Vijayan  
Janette Wallace  
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### Note:

In the last edition of the MICCAI Newsletter, an incorrect picture of Dr. Kensaku Mori was included.

Here is the correct picture of the esteemed 2013 MICCAI General Chair.

We offer our sincerest apologies to Dr. Mori for this oversight. Thank you for your humour and good grace in excusing this mistake.