Preface

Welcome to the 29th IEEE International Symposium on Computer-Based Medical Systems!

We are proud to present the proceedings of the 29th IEEE International Symposium on Computer-Based Medical Systems, held in partnership between Northern Ireland and the Republic of Ireland from June 20th until June 23rd 2016. Following the practice set at IEEE CBMS 2015 in Brazil to hold the symposium over two sites, an academic venue in one city and a clinical setting in the other, for 2016 the symposium is being held over two locations: the Trinity College Health Sciences building at St. James’s Hospital, Dublin, is the venue for June 20, 2016 and Queen’s University Belfast, hosts the symposium for June 21-23, 2016.

The call for papers was circulated in the autumn and distributed widely to the CBMS community. The community responded enthusiastically: we received in total 120 submissions from 28 countries from all continents, excluding Antarctica. The submissions were reviewed by the members of the Program Committee (PC) and external reviewers. Subsequently, Senior PC members wrote meta-reviews based on the reviews and the submission itself. All submissions received at least two reviews and a metareview. On average, a submission received 3.2 reviews and a metareview. There were altogether 186 experts involved in this review phase of the submissions. The final decisions were made by the Program Committee chairs based on the recommendations made by the Senior PC members. In the end, we accepted 56 papers as full papers. Submissions authored by any organizer were reviewed and decided on separately, so that the anonymity of the reviewers could be retained.

With respect to past editions, we introduce two novelties in the programme structure. The first one regards the Skyline Track, to collect papers with ambitious new ideas and ongoing works from academia and industry. The Skyline Track is intended as a forum for research topics and for pioneering work about to reach industrial maturity. We received 26 submissions to the Skyline Track, and we accepted 16 papers to appear in the Skyline Track program.

The second novelty is the award for the best papers authored or co-authored by a student supported by the IEEE Computer Society Technical Committee on Computational Life Sciences, which sponsors three awards for papers from the General Track and one award for papers of the Skyline Track.

We are pleased to welcome the Minister for Health, Mr. Simon Harris, T.D. to formally open this 29th Symposium for IEEE CBMS. The 29th IEEE CBMS this year is host to four high-level keynote presentations that provide a deep insight in four topics of large interest, in addition to our programme of accepted papers. On the first day in Dublin, Prof. Hanchuan Peng, Allen Institute for Brain Science, USA, presents a talk about Massive Scale Neuroinformatics. For the second day in Belfast, Professor Joydeep Ghosh, Schlumberger Centennial Chair, University of Texas at Austin, USA, talks about Personalized Healthcare: Attaining “segments of one” from Electronic Health Records. Our guest on the third day is Prof. Martin G. Curley, Intel Labs
Europe, Intel Corporation, who gives insights on Transforming Healthcare using Open Innovation 2.0. On the fourth day, Prof. Geraldine Fitzpatrick, Technical University Wien, Vienna, Austria, elaborates on Designing eHealth technologies that work, reflecting on lessons from HCI/CSCW research.

We would like to express our gratitude to the Chairs and Programme Committee Members for helping us to attract many excellent submissions, to the Authors who contributed their articles to this symposium and to the Reviewers for their helpful suggestions that strongly contributed to improve the clarity and the quality of the papers, and to everyone who supported us in organizing CBMS.

We wish to thank our hosts Queen's University in Belfast, and Trinity College Dublin who welcome CBMS delegates to their facilities, and to the CBMS 2016 sponsors for their generous support. We extend our sincere appreciation to our sponsors The Northern Ireland Connected Health Innovation Centre, The Royal Academy of Medicine in Ireland. We thank the ACM for their support through their distinguished speaker programme, and we also thank Fáilte Ireland for their support in welcoming delegates.

We sincerely hope that the Symposium will be a favourable opportunity for researchers coming from different fields to share their ideas and find out new possible research topics.

We wish our delegates a productive time at IEEE CBMS 2016 and a warm welcome to Trinity College Dublin and Queen's University Belfast!

**Program Committee Chairs**
Jaakko Hollmén
Myra Spiliopoulou

**General Chairs**
Bridget Kane
Adele Marshall
Paolo Soda

**Publication Chairs**
Sameer Antani
Carolyn McGregor