Tribute to Michael Dunn for his dedication and contribution to proteomics and stem cell focus

Hana Kovarova & Suresh Jivan Gadher

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The concept of the proteome was first introduced at the first Siena meeting in 1994 with subsequent publication in 1995 **1** and the term “proteomics“ was coined in 1997 to make an analogy with genomics, the study of the genome **2**. Since then, proteomics as the comprehensive study of proteomes including their variations, modifications, and networking via interactions in living cells and tissues has expanded dramatically and revolutionized protein science and research, providing stunning insight into the complexity of proteins. Among the key leading researchers in and around the areas of proteomics, whose contributions have significantly impacted the field, we would like to congratulate Professor Michael Dunn who has driven the proteome concept and proteomics development over the last 20 years. His enthusiasm is a shining example to all and it paved the way for many scientists and researchers to enter this magical and mysterious world of proteomes and proteomics.

Our relationship with Mike goes back a long way when we joined his Proteomics editorial team. We fondly remember not only the joys of working with him but also the trials and tribulations of manuscript processing and the editorial process. Focusing on some special experiences, we would like to mention two occasions when Mike not only excelled in his duties but was inspirational in creating something exceptional which greatly influenced our direction of research over the years.

The first occasion was when Mike suggested that we create a special issue of Proteomics by merging two highly advanced yet separated research fields into one where both could benefit from each other's expertise and

experience. These two specialties were Proteomics and Stem Cell Biology. Our interaction with Mike took place in March 2009 in Hinxton, Cambridgeshire, UK, at a conference entitled "Perspectives in Stem Cell Proteomics," which was held at the Welcome Genome Campus. After our presentation on "Protein Profiling and signalling pathways in differentiation of neural stem cells," we discussed with Mike how these two distinct fields had evolved with evidently diverging rather than converging progression. At the juncture of this dilemma was the fact that hurdles in stem cell research were immense and proteomics could help resolve some of the difficulties as well as reveal proteins critical to stem cell differentiation, maintenance, and specific lineage determination. We agreed that the proteomic technologies had progressed significantly over the last decade allowing proteome studies in all areas of biological research and enabling in principle, the comprehensive analysis of stem cell expressed proteins in time and space. Such a merger of stem cell research and proteomic expertise could be very productive and possibly lead to beneficial outcome toward much awaited medical breakthroughs. In addition, it could also rectify the distinct lack of interaction between experts from the proteomic and stem cell field, which was very apparent. With such exciting thoughts in mind and to facilitate interactions between specialists in proteomics and stem cell biology, we embarked on a new initiative of putting together a focus issue on Stem Cell Proteomics to highlight some of the commonalities as well as diversities of proteome biology of stem cell research. This issue of Proteomics was published in 2011 and it covered contemporary and emerging topics, encompassing reviews, research papers presenting novel findings, hypotheses based on original data as well as technical briefs **3**. An additional aim was that cross-referencing of various studies would help accelerate research in these fields providing practical protocols and techniques of use for both novice and established investigators. One such example is where proteomics helped to identify markers in the blood to diagnose stroke when stem cell experts had observed functional recovery in animal models of the disease following transplantation with neural stem cell **4**, **5**. In future, such combined approaches may facilitate discovery of new therapies or targets related to personalized regenerative medicine. Our

sincere thanks go to Mike for his enthusiasm and invaluable input, without which this “first ever” issue of “Focus on Stem Cell Proteomics” would not have been conceived and published.

The second occasion was Mike's involvement in the neogenesis of Central and Eastern European Proteomic Conference (CEEPC). Mike provided significant input into the scientific program for the conference as well as journeyed to Prague for the inauguration of first CEEPC meeting in 2007. Today, CEEPC has proudly reached a decade of proteomics and will celebrate its tenth anniversary in 2016 (**http://ceepc.eu/**). It supports proteomic and scientific interactions in and around Central and Eastern Europe, as well as worldwide, making it a truly international conference of importance and which is greatly enjoyed by all who attend it. The term CEEPC was coined in 2007 by founder members to address the apparent lack of visibility of advancing proteomics as well as infrequent or sporadic meetings and almost total lack of international collaborations involving these countries **6**. The intense efforts and friendship between scientists from Czech Republic, Russia, United Kingdom, Canada, and the United States led to the birth of the first CEEPC jointly organized with the third Czech Proteomic Conference in 2007 in Prague. More than 130 delegates from 18 countries over the world attended this meeting and this was the first time that such a comprehensive number of Central and Eastern European countries participated jointly with the Czech Proteomic Society **7**. It was pleasure to have Mike delivering the opening keynote lecture on “Proteomics of Heart Transplant Rejection” and discussing proteomic approaches designed to look at protein expressions within the patient hearts that provide protection against the development of coronary artery disease. After a look-back at a decade of CEEPC published meeting reports (**http://ceepc.eu/meeting_reports**), it is evident that many if not all important aspects of proteomics were covered over the years. We were privileged to have Mike Dunn representing United Kingdom at CEEPC at the onset and to this day, we greatly appreciate his incredible support of the CEEPC. Our sincere thanks go to Mike and we wish him a wonderful 80th birthday.

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