

# Welcome address by Prof Jean Lubuma, Dean: Faculty of Natural and Agricultural Sciences, University of Pretoria

Dear delegates:

Welcome to the 2017 International Conference on Mathematical Methods and Models in Biosciences (BIOMATH) and the School for Young Scientists (SYS) hosted by the Department of Mathematics and Applied Mathematics and the SARChI Chair in Mathematical Models and Methods in Bioengineering and Biosciences (M3 B2) in the Faculty of Natural and Agricultural Sciences (NAS) at the University of Pretoria (UP).

The Faculty of Natural and Agricultural Sciences is one of the largest and most diverse of its kind in South Africa. With about 7 000 students, the Faculty consists of 16 departments and more than 25 research institutes and centres grouped into the following broad academic clusters: Agricultural and Food Sciences, Biological Sciences, Mathematical Sciences and Physical Sciences. The Faculty contains within its structure the custodians of knowledge fields most relevant to this BIOMATH conference.

The strategic vision 2025 of the University of Pretoria is to be a leading research-intensive university in Africa. To this end, one of the strategic goals is to strengthen the University's research and international profile, with an increasingly focus on multidisciplinary research, productive collaborations and partnerships. This Faculty contributes significantly towards the realisation of this vision. In particular, the Department of Mathematics and Applied Mathematics is an important contributor to the extent that the CWTS Leiden Ranking positions UP as the top university in South Africa in Mathematics and Computer Science.

Since the inception in 1995 of the BIOMATH Conference Series held until 2016 only in Bulgaria, the Department of Mathematics and Applied Mathematics has been a key role player in many respects. The Department is effectively, actively and notably represented on the International Steering Committee of BIOMATH. A strong delegation from UP, including postgraduate students, has always attended the annual BIOMATH conferences in Bulgaria. The University of Pretoria was honoured to organise the unique BIOMATH Satellite conference in 2015. The University of Pretoria is even more honoured now to be the first institution to host a regular BIOMATH Conference outside Bulgaria. We are grateful to the International Steering Committee for honouring UP in this manner.

One of the features of the BIOMATH conferences is the inclusion of the School for Young Scientists. We appreciate that this tradition is maintained this year, given the critical situation of mathematical sciences in South Africa and

the serious shortage of mathematicians on the African continent. We heartily welcome the 36 young scientists and emerging researchers who are participating in this conference, as the future of mathematical sciences depends on them.

BIOMATH 2017 is distinctive in many respects. As mentioned above, the conference takes place for the first time outside Bulgaria. Though being hosted by the University of Pretoria, the conference is held at the Skukuza Camp of the famous Kruger Park, which is 400km from Pretoria. The current location gives to BIOMATH 2017 a true African flavour and turns out to be an ideal place to talk about Savannah Modelling, which is the main theme of the 2017 School for Young Scientists. I welcome and thank all the invited speakers and contributors.

I must congratulate the Organising Committee on including the BIOMATH Days as a pre-event held at the University of Pretoria from 22 to 23 June 2017. This will enable delegates who are available to visit at least two of our campuses, which are involved in modelling and computational mathematics in life sciences. I wish to thank the delegates who will be delivering talks at this pre-event.

We acknowledge generous financial support from the Society for Mathematical Biology (SMB). We thank the DST/NRF Centre of Excellence in Mathematical and Statistical Sciences, the DST/NRF SARChI Chair in Mathematical Models and Methods in Bioengineering and Biosciences and the Department of Mathematics and Applied Mathematics for their support.

The conference counts 90 delegates, more than 40% of which are young scientists and postgraduate students. We welcome all the delegates. May the stay of those who come to South Africa for the first time be the most pleasant so that this is not their last visit to this beautiful country.