

Università degli Studi di Torino



Molecular Biotechnology Center (MBC)

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RE: Candidacy to the renewal of the position of President

Dear SIBBM members,

The statutory change that you have just voted allows me to submit my candidacy to the position of SIBBM President for the next term. Although this position is very demanding of my time and energies, I have decided to make myself available for a further term because I believe we are in the middle of a transition that I would like to do my best to complete. SIBBM was founded back in 1965, very soon after Molecular Biology official birth date, and has considerably contributed to affirm and diffuse Molecular Biology as an independent Science in Italy. On this, I urge you to read the opening speech given by Francesco Amaldi, President at that time, on the SIBBM 30th year celebration (on SIBBM History). Times have much changed since then, and by now there is no laboratory working in LS that does not make ample use of Molecular Biology techniques. But, is using Molecular Biology the same as pursuing Molecular Biology research interests? I do not believe so. The definition of Molecular Biology that I most like was given by William Astbury, the physicist whose pioneering X-ray diffraction studies of keratin helped Linus Pauling discover the alpha helix, and who made the first steps towards the discovery of the structure of DNA in 1937: (Molecular Biology is) not so much a technique as an approach, an approach from the viewpoint of the so-called basic sciences with the leading idea of searching below the large-scale manifestations of classical biology for the corresponding molecular plan. ... It must at the same time inquire into genesis and function.

Far from getting old, Molecular Biology is opening entirely new perspectives that allow us to glimpse more and more into the mechanisms at the core of cell functions and identity, such as the discovery of non coding RNAs and their many roles, and the deeper and deeper understanding of epigenetics, leading to revolutionary applications such as those allowed by CRISPRCas9 and its multiple adaptations, genetic vaccines and gene therapy. During the past 20 years or so, Molecular Biology (and Biophysics) have proceeded in parallel with Bioinformatics, and then with Structural Biology and Imaging. I believe the next challenge for SIBBM is that of matching present and future, facilitating the synthesis between all these different scientific approaches. For this reason we have recently started to closely collaborate with the Bioinformatics Italian Society (BITS), and this year we are fostering a SIBBM Seminar Satellite Symposium on "Phase-separation and Self-Organizing Biocondensate in Cell Biology" organized by Prof. Claudio Schneider and sponsored by CIB.

I would like to continue working in this direction, aiming at making SIBBM a useful tool for all scientists interested in these themes.

Sincerely

Valeria Poli, Ph.D.

Professor, Molecular Biology

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