

Introduction to the themed issue in honour of Professor Wojciech J. Stec

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Birthdays are an appropriate time to honour a scientific colleague, which is done by this specific issue for Professor Wojciech J. Stec, appraising their development and research over the years. It is therefore my great pleasure to introduce this particular issue of *NJC*, honouring his 70th birthday. Colleagues, former students, co-workers and friends herein outline their affiliation with Wojtek, thus expressing their appreciation of his science.

His scientific career is built upon on a solid basis of phosphate chemistry, which developed quickly into more specific tangents, such as chiral phosphorus, and then further into the combination of phosphorus and sulfur in phosphorothioates, accompanied by the somewhat related phosphoroselenoates. Numerous aspects of their synthesis and mechanisms were tackled. In the long run, his phosphorothioate chemistry attracted the most attention, where chirality as a particular issue was brilliantly tackled. In this context, a most important step was his interest in phosphorothioate oligonucleotides, thus stepping toward nucleic acids. His experience, particularly in the stereospecific synthesis of diastereomers, signified a great step forward in the subject. His contributions had enormous impact on the field, not only in its

mechanistic aspects, but also in applications for the inhibition of gene expression by the so-called antisense method. Particular mention is deserved for his work with Gerald Zon on the automated synthesis of phosphorothioate oligonucleotides, which facilitated their wide usage. The inhibition of gene expression by antisense oligonucleotides became widely appreciated and opened the way for their development, with considerable potential as therapeutics. Thus Wojtek's work found its way into the realm of biochemistry and biology, a big step from synthetic and mechanistic phosphorus chemistry.

This was obviously a considerable advance with wide implications, but beyond the practical side of this development, there is another that is probably less obvious to the outsider, namely that a window was opened for younger students and scientists in Poland to bridge the gap between chemical and biological questions. Traditionally being kept somewhat apart, now the two subjects could be seen in conjunction, offering new opportunities. Thus, for the younger generation, the outlook was widened.

Wojtek's work, described in an impressive list of about 400 publications, is internationally widely recognised. His

attitude to science with his questioning and open mind has made him a most welcome colleague, and his contribution has been sought in many collaborations. This has also led to numerous invitations for lecture tours and longer stays as a visiting professor in various countries in different parts of the world. We, in Göttingen, were fortunate to have been beneficiaries of such most welcome visits on several occasions. His more extensive posts as a visiting scientist at the FDA and as a Fogarty Scholar-in-Residence in Bethesda, USA, are excellent examples of his international reputation. A series of awards and memberships of several editorial boards of international journals are also signs of this appreciation. His appointment as Vice-President of the Polish Academy of Sciences is yet another result of his standing, and the result of his engagement in science policy.

Thus, this issue is an appropriate venue to honour Professor Stec's scientific career and many achievements. All the authors of this issue are proud to have been chosen to make this a very special birthday present, accompanied by their best wishes for the future.

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