

EDITORIAL

David A. Morris at 90: Celebrating a pioneer of phytohormone research and his enduring ties to the Czech scientific community

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Dr. David Morris belongs to the generation of plant physiologists who laid the foundations of our current understanding of the transport in plants of the plant hormone auxin. Throughout a scientific career spanning more than six decades, he has made fundamental contributions to the study of auxin transport, plant development, and the hormonal regulation of growth. Working at the University of Southampton, he became internationally recognized for his pioneering research and for fostering collaborations that connected plant hormone scientists across Europe, including in particular a strong and enduring relationship with the Czech plant hormone community. As he recently celebrated his 90th birthday, colleagues and friends honour not only his scientific achievements but also his generosity, wisdom, and lasting influence on several generations of researchers. Although David belongs to the generation of plant physiologists who shaped modern plant hormone biology, he also influenced many Czech scientists and cooperated with famous researchers from the Czech plant hormone community, including Prof. Eva Zažímalová, Prof. Miroslav Strnad, Dr. Jan Petrášek and Prof. Jiří Friml. Among David's international collaborations, his association with the Institute of Experimental Botany of the Czech Academy of Sciences (IEB) in Prague occupies a special place in his life and work.

A former director of the Institute and later President of the Czech Academy of Sciences, Prof. Eva Zažímalová, recalls first meeting David at an ACPD conference in Prague in 1999. David himself remembers becoming



David A. Morris (Photo: Courtesy of Frank Maas.)

acquainted with members of the Czech plant growth regulator community even earlier, during one of the conferences held in Liblice in the late 1980s.

Later, encouraged by Dr. Miroslav Kamínek and following a formal invitation from the then director of the Institute, Dr. Ivana Macháčková, David joined Prof. Zažímalová's group at the Laboratory of Hormonal Regulations in Plants at the IEB in September 2000, where he was warmly welcomed and quickly became an integral part of the team. His participation in the work of the group at IEB was supported over a three-year period by grants from the UK Royal Society and the Academy of Sciences of the Czech Republic under the European Science Exchange Scheme.

At that time, the Prague group was investigating the control of cellular auxin transport and was re-examining prevailing interpretations of the effects of brefeldin A (BFA) and the phytohormone NPA on auxin transport using a novel cultured tobacco cell system. Prof. Zažímalová's group were experienced and recognized experts in the use of this model system to investigate aspects of trans-membrane transport. David shared these interests and together, the collaborators undertook a detailed analysis of auxin transport across the plasma membrane, employing specially bred plant cell lines and innovative experimental approaches. This work resulted in three joint research papers and several book chapters which addressed the relationship between auxin transport and cell division, the effect of phytohormones on vesicle trafficking, and ultimately the molecular basis of auxin-regulated auxin efflux, culminating in a widely cited paper published in *Nature* in 2005, based on the work carried out jointly between Prof. Zažímalová's group at IEB and that of Prof. Jiří Friml at the University of Tübingen. Following an invitation from Prof. Zdeněk Opatrný, in 2003 David also gave a course of lectures in plant physiology to postgraduate students and staff in the department of Plant Physiology at Charles University.

Beyond his scientific contributions, David had a profound influence on the confidence and ambitions of his Czech colleagues. He encouraged them to aim for publication in the leading international journals of the day and demonstrated that work carried out in Prague could successfully compete at the highest international level. The collaboration also developed a memorable cultural dimension. David was determined to learn Czech, and an informal arrangement was established during coffee breaks: David would speak Czech while his Czech colleagues spoke English, with each side correcting the other's mistakes. As a result, David's Czech improved steadily, while his collaborators significantly strengthened their command of English.

David's interests extended well beyond plant science. He was deeply curious about history, and discussions of Central European history provided him with perspectives that differed from those commonly encountered in Britain. This may have contributed to his remarkably open-minded attitude toward colleagues from Central and Eastern Europe. Eva Zažímalová vividly recalls occasions when David reacted strongly to manifestations of cultural

condescension or exclusion. Such episodes reflected his conviction that scientific and personal relationships should be grounded in mutual respect rather than national or cultural hierarchies.

David's association with Palacký University in Olomouc (PU), particularly with Prof. Miroslav Strnad's group at the Laboratory of Growth Regulators – a joint workplace of the Faculty of Science, PU and IEB – developed gradually over many years and was characterized as much by friendship as by scientific collaboration. His first visit to Olomouc took place in 2003, where he delivered a seminar. A more substantial collaboration began in 2006, when the Olomouc group was developing advanced methods for auxin hormonics and sought David's advice on biologically relevant questions that could benefit from these analytical approaches.

From 2006 onwards, David became a regular visitor to Prof. Miroslav Strnad's laboratory. Although his stays were usually relatively short, ranging from a few weeks to a few months, they left a lasting impact on the laboratory and its members. He contributed to studies of auxin metabolism and transport, assisted with the interpretation of experimental data, and helped finalize manuscripts arising from collaborative projects. He also participated in the preparation of dissertations, provided meticulous editorial assistance with scientific writing, and generously shared his extensive experience in plant hormone research. He was presented with the Certificate of Honour of Palacký University in 2006 by the then Dean of the faculty of Science, Prof. Juraj Ševčík, in recognition of his contribution to collaboration with the Laboratory of Growth Regulators at the University.

One notable outcome of this collaboration was his contribution to the paper focused on analysis of steroid hormones in plants published in 2009. His involvement extended well beyond authorship; he frequently helped younger colleagues improve manuscripts and develop confidence in presenting their scientific results internationally.

David was particularly valued for his willingness to support students and early-career researchers. He played an important role in several doctoral defences. Colleagues recall his participation in these examinations not only as that of an expert scientist, but also as a fair-minded and supportive mentor.

His visits often combined scientific activities with broader academic engagement. He participated in international collaborations, including visits to Kraków that helped strengthen contacts between Czech and Polish plant scientists. He lectured regularly in Olomouc and contributed to discussions on the history and development of plant science. One of his later presentations, delivered in 2012, reflected on Czech plant science before and after the Velvet Revolution, a subject that combined his scientific interests with his fascination for Central European history and which highlighted the importance of international cooperation in scientific research.

Even after his formal involvement in research projects ended, David continued to visit the Czech Republic almost every year. These later trips were often connected with

his enduring friendships in Prague and Olomouc and with his love of classical music, particularly his regular visits with Czech friends and colleagues to concerts during the Prague Spring Music Festival.

Many of the warmest memories of David, however, come from outside the laboratory. He spent countless evenings with colleagues, their families, and neighbours, often gathered in gardens over food and beer. His cheerful personality, sense of humour, and genuine interest in people, Czech traditions and Czech language made him welcome wherever he went. Having learned some Czech, he happily conversed not only with scientists but also with their neighbours who spoke no English. These friendships endured long after his visits, and many remain in contact with him through letters and holiday greetings.

One of his last public appearances in Olomouc was in 2018, when he delivered a lecture at a small scientific meeting organized in connection with the celebration of Miroslav Strnad's sixtieth birthday. Sharing the programme with colleagues from abroad, David once again demonstrated the intellectual curiosity, generosity, and enthusiasm that had endeared him to so many Czech scientists over the years.

A particularly touching final chapter in these long-standing friendships came in July 2024, when Prof. Lucie Plíhalová and Prof. Ondřej Novák visited David in his beloved Winchester. The meeting was filled with warm memories of science, travels, friendships, and even a return to some of the Czech words that David had learned during his years of collaboration with Czech colleagues. They left Winchester with a strong sense that the enjoyment of those years had been deeply mutual. The collaborations, friendships, and time spent together in both the Czech Republic and the United Kingdom had clearly remained important to David throughout his life. Their visit also reinforced a feeling long shared by many of his Czech colleagues - that the Czech Republic held a special place in David's heart, just as he continues to hold a special place in theirs.

For those who worked with him in Prague as well as in Olomouc, David is remembered not only as an outstanding scientist, but also as a generous colleague, an enthusiastic learner, loyal friend, trusted mentor and a person whose intellectual curiosity extended far beyond the laboratory and whose presence enriched both the scientific and personal lives of all who knew him.