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On June 2, Professor Patrick Anthony Riley, a world-renowned expert in pigment cell research and malign cancerous skin diseases, received the title of Doctor Honoris Causa in the historical building of Karolinum. The honorary title of the doctor of medicine was handed to him by his long-term Czech colleague and collaborator Professor Jan Borovanský.

Professor Riley's experiments had led up to the clinical testing of 4- hydroxyanisole that became the foundation of the new direction in experimental treatment of melanoma, a tumor which is becoming more widespread every year. "Pigment cells can transform amino acids into quinones and semiquinones, highly reactive intermediary products that have toxic effects on the cell. There is an assumption that if we offer suitable substrates to the tyrosinase enzyme that can create quinones, we could systematically eradicate targeted tumor cells," said Professor Borovanský.

"Professor Riley's main achievement is the introduction of the new type of treatment. That's because the treatment of a malign melanoma is very difficult. When the melanoma grows thicker than 1 milimeter and is not removed in time, the prognosis is very unfavourable," noted Professor Borovanský.

Zleva: prof. Patrick Anthony Riley a prof. Jan Borovanský

Professor Riley has repeatedly taken part in the Czech scientific conferences in biochemistry and dermatology and is a member of the international editorial board of the Folia Biologica journal published by the Charles University 1st Faculty of Medicine. Commenting on his recent collaboration with his Czech collegues, he said: "The first international monograph on melanosomes is coming out this July through Wiley/Blackwell. Professor Borovanský and I have put together a team of authors and I believe the book is going to be a success at this September's congress in Bordeaux."

Professor Riley has collaborated with today's Institute of Biochemistry and Experimental Oncology of the 1st Faculty of Medicine since the late 1970s. A founder of the Melanoma Research journal, he was sending copies of the journal to his Czech colleagues and provided with them with chemicals that were unavailable in the country. It was mainly thanks to his contributions that even before the Velvet Revolution, the institute managed to overcome scientific isolation and became one of the top European research centers in the field of melanins, melanosomes and malign melanomas.

Prof. P.A. Riley , professor emeritus of cytopathology at the University of London and the director of the Totteridge Institute for Advanced Studies, studied at University College London and University College Hospital Medical School (UCHMS), graduating in 1960. He joined the Department of Dermatological Histopathology at UCHMS as a Rockefeller Scholar in 1963, where he studied epidermal dendritic cells. By means of the selective melanocytotoxicity of 4-hydroxyanisole (a compound that has accompanied Dr. Riley throughout his scientific career), he demonstrated the distinct lineage of Langerhans cells and melanocytes.

From 1966 he worked in the Department of Pathological Chemistry, UCHMS, (which over the years turned successively into the Department of Chemical Pathology, the Department of Biochemical Pathology and, finally, the Department of Molecular Pathology) earning the title of Professor of Cell Pathology in 1984.

The scientific community recognises prof. Riley as a world expert and father of metabolically-based melanoma therapy using the tyrosinase-catalyzed production of cytotoxic quinones as the basis. The model compound, 4-hydroxyanisole, reached clinical trial with partial success but, due to unfavourable pharmacokinetics, the search for further cytotoxic tyrosine analogues has continued. In 1991 prof. Riley established the Quintox group, a British-Dutch-Czech association of experts joined by a common interest in quinone toxicity, which, aided by EU funds, produced many significant publications dealing with quinones. This joint work generated novel data which has enabled the reformulation of the Raper-Mason scheme of melanogenesis, which for fifty years had incorrectly described the biosynthesis of melanins.

Prof Riley is co-founder (and former Secretary) of the *European Society for Pigment Cell Research* and a co-founder of the International Federation of Pigment Cell Societies. He was a co-founder and, until 2008, Executive Editor of *Melanoma Research*.

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