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IN MEMORIAM

Edwin Vedejs (1941–2017)

Edwin Vedejs (*Edvīns Vedējs*) suddenly passed away at home in Madison (WI, USA), with his wife by his side, on December 2, 2017. He was born in Riga, Latvia on January 31, 1941, to Velta (nee *Robežnieks*) and Nikolajs Vedejs. The family started the hard way of refugees to Germany in fall of 1944 where they lived in Könitz and Fischbach for six years in displaced persons camps and emigrated to the USA in June 1950. At the beginning his family settled in Fort Atkinson, WI, and after repaying the cost of the trip from Germany to Wisconsin to church sponsors, they moved to Grand Rapids, MI, nearby to their close relatives.

Edwin Vedejs received BSc degree in chemistry from the University of Michigan-Ann Arbor in 1962 and PhD degree in chemistry from the University of Wisconsin-Madison in 1966, then completed a postdoctoral fellowship at Harvard University under the supervision of professor E. J. Corey who was to receive a Nobel Prize and who put the young scientist on the road to become a world-famous expert in the field of organic chemistry. Very unusual for the standards of the USA, he returned to both of his *Alma Mater* to become a professor of organic chemistry at UW-Madison for 32 years as the Helfaer Professor (1991–1996) and Robert M. Bock Professor (1997–1998) and UM-Ann Arbor for 12 years as the Moses Gomberg Collegiate Professor of Chemistry. Since 2011 E. Vedejs was a Professor Emeritus. After his retirement, University of Michigan established in his honor the Edwin Vedejs Collegiate Professor of Chemistry Chair and the first recipient is Anna Mapp – UM chemical biology and organic chemistry professor.

Auriga constellation (in Latvian – *Vedējs* (charioteer)) is located in the northern hemisphere and is the most prominent during winter evenings with 90 stars visible to the unaided eye. It was known already in ancient times, and Ptolemy had included it in his work *Almagest*. How many stars are in Edwin Vedejs' constellation if he has mentored over 80 doctoral students in his 45 years of professional career? The answer is – many more, and each shines with a special glow. They are working everywhere in the world, but their glow is the brightest in the sky of the Latvian and American chemists.

Professor Vedejs was an internationally known scholar and prolific author publishing and editing hundreds of papers and books. His research in organic chemistry has always been brilliantly logical, always focused on the solutions to currently intractable problems, and has always offered unexpected answers for others. Professor Vedejs was an internationally recognized authority in the field of organic synthesis methodologies and reaction mechanisms, therefore, the synthesis of new compounds was never done for its own sake. He was a pioneer in mechanistic research of the Wittig reaction, devoting to it almost 30 years, with and without funding, because Vedejs had an amazing ability to organize research, even without the necessary funds. Especially important in later years was his work in stereoselective synthesis (protonation of carbanions, acylation and alkylation of chiral and prochiral nucleophiles, parallel kinetic separation and control of configuration by using crystallization methods), and applications of heteroatoms (boron, nitrogen, phosphorus, sulfur, tin, silicon) in organic synthesis.

In order to understand correctly how Professor Vedejs' deeply conscious relationship with Latvia began, one must remember that each chemical reaction takes place faster if it is performed in the presence of a catalyst. Such a catalyst was a letter from Professor Janis Stradins (*Jānis Straḍiņš*) in 1984, asking Prof. E. Vedejs to write a review article on his research for the *Chemistry of Heterocyclic Compounds*.

The real interest toward developing scientific contacts in Latvia began in 1991, when the first World Congress of Latvian Scientists took place in Riga. During the summer heat at the Institute of Organic Synthesis, the lecture given by E. Vedejs on the philosophy of asymmetric synthesis was one of the best in the Chemistry section of that Congress. After the fall of the "Iron curtain", the participation in the Congress of many foreign scientists of Latvian origin was very important for starting to develop contacts with Western European and American scientific institutions.

Thus, 25 years ago, E. Vedejs started to implement a project aimed at enabling the most talented young chemists of Latvia to gain experience at the best universities in the United States. Over the years, more than ten young Latvian scientists have defended their doctoral theses (Olafs Daugulis, Artis Klapars, Edgars Sūna, Aleksandrs Prokofjevs) or completed their postdoctoral studies (Peteris Trapencieris, Einārs Loža, Māra Jure, Ēriks Rozners, Artis Kinēns, Ilga Mutule, Toms Kalniņš) at Vedejs' lab in Madison and Ann Arbor. Thus, the educational mission of Prof. Vedejs successfully continues to this day, and some of the best Latvian students now benefit from studying in the USA under the guidance of his former students (O. Daugulis, E. Rozners).

Let us mention only the most prestigious US and international awards received by Professor E. Vedejs: the Alexander von Humboldt Senior Scientist Award (1984) and the prestigious ACS award named after the Nobel Prize winner Herbert C. Brown for the study of creative synthetic methods (2004).

In the 1990s Edwin Vedejs and Barry Trost recorded ACS Organic chemistry audio course by employing their encyclopaedic knowledge of chemistry, excellent lecturer qualities, and outstanding English. Chemistry students at Madison and Ann Arbor, as well as more recently in Riga, have profited from Edwin Vedejs' excellent erudition in all areas of organic chemistry for many years. The world's chemists witnessed it again in October 2016, after receiving the three volume monograph "Lewis Base Catalysis in Organic Synthesis" published by Wiley with E. Vedejs and S. Denmark as editors.

Far away from Latvia, Edwin Vedejs' mother raised him as a fervent Latvian patriot. Therefore, despite of numerous high prizes and world recognition, he was most pleased with the Order of the Three Stars in 2006 awarded him for meritorious service to Latvia. Remarkably, his grandfather Jānis Robežnieks was also the officer of the Order of the Three Stars in 1926. E. Vedejs had received other significant Latvian awards: The Latvian Academy of Sciences Grand Medal (2005) for the development of new methods in organic synthesis and merits in the education of Latvian organic chemists, the Honorary Doctorate (2009) and Paul Walden medal (1997) from Riga Technical University (2009). The latter event took place at the 1st Paul Walden International Symposium in Organic Chemistry. Moreover, E. Vedejs was present at the 10th Symposium in June 2017 and actively evaluated student posters.

"The strong can be taught as you want, they will make their own. The student must be given an opportunity to think for himself. It is different for each individual, and we must adapt to the student, not the other way around. ... I have never worked with such outstanding students, I admire their working capacity, and I am thinking about how to teach this to the Americans", said Edwin Vedejs in 2005 about his Latvian colleagues. In order to stimulate student excellence in 2014, Vedejs established a scholarship contest for his students in Latvia, named after another outstanding Latvian chemist Gustavs Vanags.

Edwin has diligently renovated his grandfathers house near Cesis, proudly sharing the complex history of his home and homeland to visitors. He was deeply touched and inspired by the beauty of nature. Skiing, canoeing, camping, and biking were among his favorite enjoyments, especially if done with the family. Travels around the world with his wife were of special pleasure. Edwin was a family man, a loyal husband, proud father. His keen intellect and wide range of interests always led to rich conversation. He appreciated listening to works of classical and choral music, many of which he knew by heart.

We will remember Edwin Vedejs as a patient, tireless, generous, and demanding TEACHER, as a scrupulously precise, highly erudite, hard-working, and inexorably honest SCIENTIST, as a delicate, correct, modest, compassionate PERSON with a good sense of humor, as an understanding FRIEND, interested in the life of the persons around him, and always deeply emotional when talking about Latvia.

Pēteris Trapencieris,
Full Member of Latvian Academy of Sciences

Top 5 most cited articles by Edwin Vedejs (source Scopus)

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The Editorial Office of "Chemistry of Heterocyclic Compounds" shares the grief on the occasion of Professor Edwin Vedejs passing away. He was a member of our Editorial Board (1992–2010) and Advisory Board (2010–2017). We remember with gratitude his benevolent advice, as well as his contribution as editor and author, and extend condolences to his family and colleagues.