

Professor Edmunds Lukevics

A Tribute



In 1991 we regained our independence and last year Latvia became a member of EU. Throughout this time (1982-2003) Professor Lukevics served as director of the Latvian Institute of Organic Synthesis. At the same time he was involved in an investigation of biologically active organosilicon and organogermanium compounds and published several monographs on these topics: *Silicon and Life* (1971, 1978 *in Russian*, 1974 *in Romanian*, 1975 *in German*), *Nucleosides Synthesis: Organosilicon Methods* (1985 *in Russian*, 1991 *in English*), *Molecular Structure of Organosilicon Compounds* (1988 *in Russian*, 1989 *in English*), *Biological Activity of Organogermanium Compounds* (1992 *in Russian*), *Perspectives of Hydrosilylation* (1992 *in Russian*). Chapters concerning the biological activity of organogermanium and organotin compounds appeared in *The Chemistry of Organic Germanium, Tin and Lead Compounds* (1995 and 2002) and recent results on biological activity of organic Si and Ge compounds were published in 2005 as the chapters in *Metallotherapeutic Drugs*.

At present Professor Lukevics is the Head of the Laboratory of Organometallic Compounds and Editor-in-Chief of the international journal, *Chemistry of Heterocyclic Compounds* (*in Russian* and *in English* by Springer, Kluwer).

Every summer during the 30 years before 1989 he climbed mountains in the Caucasus, Tajikistan, Kamchatka, Altai, Tyan-shan, and Pamir. The highest points were at 4600 m (3 times) and the last ones were the volcano Chokai-san in Japan (1993) and the Austrian Alps near Innsbruck (2003). He continues to play basketball at the Latvia championships for seniors (55 years and more) and attends twice a week with the Institute's team for training. He is fond of classical music, especially Verdi's operas.

Born: December 14, 1936, Liepaja, Latvia.

Education:

- University of Latvia (Faculty of Chemistry), 1958
- Dr.chem. (Candidate of Science in former USSR, Ph.D. in Western countries), Latvian Academy of Sciences, Riga, 1966
- Dr.habil.chem. (Doctor of Science in former USSR), Latvian Academy of Sciences, Riga, 1973

Experience:

Latvian Institute of Organic Synthesis -

- Junior Researcher, 1958 – 1967
- Senior Researcher, 1968 – 1970
- Head, Laboratory of Organometallic Chemistry, 1970 –
- Professor of Organic Chemistry, 1979
- Vice-director, 1980 – 1982
- Director, 1982 – 2003

Scientific Interests:

- Development of methods for the synthesis of organosilicon and germanium derivatives of furan, thiophene and nitrogen-containing heterocycles and investigation of their chemical properties.
- Study of hydrosilylation and hydrogermylation.
- Synthesis and investigation of properties of penta- and hexa-coordinated organosilicon and germanium compounds.
- Synthesis of biologically active organosilicon and organogermanium compounds and studies of their properties.
- Synthesis of new anticancer β -lactams.

Honours and Awards:

- Full Member, Latvian Academy of Sciences, 1987
- The Latvian Academy of Sciences Gustavs Vanags Prize (in Chemistry), 1986
- Latvian SSR State Prize, 1974, 1989
- S.Hiller Medal (Latvian Institute of Organic Synthesis), 1990
- G.Vanags Medal (Riga Technical University), 1991
- D.H.Grindel Medal (company 'Grindex', Latvia), 1995
- L.Liepina Medal (Institute of Inorganic Chemistry, Riga), 1996
- The Latvian Academy of Sciences Grand Medal, 1996
- Silver Medal of Milano University, 1996
- Schmiedebergs Medal (Latvian Pharmacological Society), 1998

- The Latvian Academy of Sciences and Company "GRINDEX" Prize, 1999
- Paul Walden's Medal (Riga Technical University), 2000
- Latvian Academy of Sciences Presidium Award, 1971, 1973, 1977, 1981, 1982, 1985, 1987, 1989, 1992
- International Man of the Year (The International Biographic Centre of Cambridge, England), 1992 – 1993, 1994 – 1995
- Man of the Year (The American Biographical Institute), 1994
- The first-level Badge of Honour of the Order of Three Stars (Latvia), 1997
- Company “Grindex” gold badge of honour, 2001
- The Cabinet of Ministers of the Republic of Latvia Prize, 2004

Professional Activities:

- Member of Presidium and Senate, [Latvian Academy of Sciences](#), 1987 – 1991
- Member of Board, Division of Chemical and Biological Sciences, Latvian Academy of Sciences, 1983-1993
- Member, Latvian Academy of Sciences Commission on Terminology, 1987 – 1999
- Chairman, Habilitation and Promotion Council (Chemistry and Pharmacy), Latvian Institute of Organic Synthesis, 1994 – 1999
- Member (Chairman, 1991-1993, 1997 – 2002), Latvian Council of Science Expert Committee for Chemistry, 1991 -
- Vice-chairman, Habilitation and Promotion Council (Chemistry), University of Latvia, 1998-
- Member of Editorial Board for:
Khimiya Geterotsikicheskikh Soedinenii (Chemistry of Heterocyclic Compounds), 1980-1985;
Editor-in-chief, 1985 - Proceedings of Latvian Academy of Sciences, 1982-1990 Latvian Journal of Chemistry, 1991 - Bioorganicheskaya Khimiya, 1989 – 1993 Applied Organometallic Chemistry, 1990 - Main Group Metal Chemistry, 1992 - Metal-Based Drugs, 1993 – 2003 Mendeleev Communications, 1994 - Advances in Heterocyclic Chemistry, 1994 - Silicon Chemistry, 2001- Arkivoc, 2001 - Bioinorganic Chemistry and Applications, 2003 –

Memberships:

- Member of Organometallic Chemistry Division, Federation of European Chemical Societies, 1995
- Member, American Chemical Society, 1997
- Member, National Geographic Society, 1997
- Member, Latvian Chemical Society, 1992
- Honorary Member, Pharmacological Society of Latvia, 1997

Recent publications:

1. Lukevics E, Ignatovich L. Biological activity of organosilicon compounds. In: *Metallotherapeutic Drugs & Metal-based Diagnostic Agents. The Use of Metals in Medicine*, Gielen M and Tiekink RT (eds). Wiley: 2005; 83-107.
2. Lukevics E, Ignatovich L. Biological activity of organogermanium compounds. In *Metallotherapeutic Drugs & Metal-based Diagnostic Agents. The Use of Metals in Medicine*, Gielen M and Tiekink RT (eds). Wiley: 2005; 279-295.
3. I. Iovel, L. Golomba, M. Fleisher, J. Popelis, S. Grinberga, E. Lukevics. Hydrosilylation of (hetero)aromatic aldimines in the presence of Pd(I) complex.- *Chem. Heterocycl. Comp.*, **2004**, *40*, 701.
4. G. Veinberg, M. Vorona, I. Shestakova, I. Kanep, E. Lukevics. Design of β -lactams with mechanism based nonbacterial activities. – *Current Medicinal Chem.* **2003**, *10*, 1741.
5. E. Lukevics, P. Arsenyan, S. Belyakov, O. Pudova. Synthesis, structure and transformations of ethynylgermatranes. – *Eur.J.Inorg.Chem.* 2003, 3139-3143.
6. E. Abele, E. Lukevics. Recent advances in the synthesis and transformations of heterocycles mediated by fluoride ion activated organosilicon compounds. - *Heterocycles* **2002**, *57*, 361.