VYSKOČIL František, Prof., RNDr., D.Sc.
Born September 3, 1941 in Pelhřimov,

- Neurophysiology
- Member of *Learned Society* since 1994 (Founding member)

Educational and professional preparation:

- 1958-1963, Faculty of Natural Science, Charles University (CU), Prague;
- 1963, RNDr.;
- 1968, CSc. in biological sciences, Czechoslovak Academy of Sciences (CSAS), Prague;
- 1990, D.Sc. in biological sciences, CSAS.
- Area of research: interactions between excitable cells, nitric oxide in nerve degeneration, discovery of nonquantal neurotransmission in mammals, patch clamp, current and voltage clamp, molecular biology and desensitization of receptors, site mutagenesis.
- Results published in 450 articles, 165 in international journals. Cited more than 3,000 times with mean citation rate 110 per year, mostly papers on ion sensitive electrodes and nonquantal neurotransmission. (Citation Classic *Current Contents* 15, 1989)
- Scholarly interests: Lectures in physiology and neuroscience, five textbooks, one monograph in Czech (*Release and action of acetylcholine at peripheral synapse*, Academia 1990, Prague).
- Student of Bible since 1973.
- Hobbies: violin and chamber music performance, drawing, poetry, scientific and ethical essays.

Employment and academic positions:

- 1968-1990, Physiological Institute (PI), CSAS;
- 1990-1999, Head, Department of Cellular Neurophysiology, PI, CSAS;
- 1994-1997, Head, Department of Physiology and Developmental Biology, Faculty of Science (FS), CU (now Physiological Institute), Senior Scientist and FS, CU, Professor of Physiology and Pharmacology.

Membership in selected Domestic Scientific Bodies:

- 1990-present, Chairman, Commission for Conferring the Title of DrSc. in Animal Physiology and Zoology;
- Chairman, Commission for Final State Examinations in Neurobiology, FS, CU;
- Member, Commission for Conferring the Title of RNDr., FS, CU;
- Member, Examination Commission for Doctoral Study in Animal Physiology

- Member, Editorial Board, *Physiologia Bohemoslovaca*, 1991-1993, *Physiological Research*, 1994-present, *Vesmír* (The Universe) 1991-present
- 1990-1994, Member, Academic Assembly
- 1992-present, Member, Council of Academy of Sciences of Czech Republic (AS CR) for promotion of science
- 1994-1997, Member, Scientific Council, Biological Section, FS, CU
- 1991-present, Member, Scientific Council, Foundation of Czech Literary Fund
- 1990-1996, Chairman, Scientific Council, Physiological Institute AS CR.

Membership and positions in international organizations and societies:
- 1991-1994, Foreign Member, Biophysical Society (USA)
- 1998-present, Member, The Physiological Society (London, Cambridge)
- 1968-2001, Member, J. E. Purkyně Czechoslovak Physiological Society
- 2001-present, Honorary Member, J. E. Purkyně Czechoslovak Physiological Society

Notable Awards:
- 1974, Joint Award, Russian and Czech Academies of Sciences (for discoveries in neuro-muscular transmission)
- 1991, CSAS Award (for Collected works)
- 1991, CSAS Award (for Promotion of Science)
- 1994, Dr. h. c., Kazan Medical University (Russia)
- 1994, Award, AS CR (for work „Molecular Basis for the Transfer of Information at the Myoneural Junction")
- 1995, State Award, Republic of Tatarstan (for collected joint works)
- 1996, Award, AS CR (for Lifelong Contribution)
- 1999, Golden Record of Achievement, International Biographical Centre (IBC) Cambridge (UK) International Man of the Year for 1999/2000, IBC
- 1999, Golden Scroll of Excellence, IBC
- 2002, Honorary Medal, J.E. Purkyně Czech Medical Society

Selected Publications:

- Novotný I., Vyskocil F.: Inhibition by physostigmine of the increase of oxygen consumption induced by potassium in muscle. *Nature,* Aug. 26, **191**, 916-7, 1961
- Beranek R., Vyskocil F. The action of tubocurarine and atropine on the normal and denervated rat diaphragm. *J. Physiol*. (Lond.) **188** (1), 53-66, 1967
- Vyskocil F., Kriz N., Bures J.: Potassium-selective microelectrodes used for measuring the extracellular brain potassium during spreading depression and anoxic depolarization in rats. *Brain Res*. **39** (1), 255-9, 1972
- Vyskocil F., Illes P.: Non-quantal release of transmitter at mouse neuromuscular junction and its dependence on the activity of Na^+-K^+ ATP-ase. *Pflugers Arch*. **370** (3), 295-7, 1977

- Magazanik L. G., Vyskocil F.: Dependence of acetylcholine desensitization on the membrane potential of frog muscle fibre and on the ionic changes in the medium. *J. Physiol*. (Lond.) **210** (3), 507-18, 1970
- Vyskocil F., Teisinger J., Dlouha H.: A specific enzyme is not necessary for vanadate-induced oxidation of NADH. *Nature* **286** (5772), 516-7, 1980
- Vizi ES, Vyskocil F. Changes in total and quantal release of acetylcholine in the mouse diaphragm during activation and inhibition of membrane ATPase. *J. Physiol*. (Lond.) **286**, 1-14, 1979
- Giniatullin RA, Talantova M., Vyskocil F.. Desensitization shortens the high-quantal-content endplate current time course in frog muscle with intact cholinesterase. *J. Physiol*.(Lond.) **502** (Pt 3), 641-8, 1997
- Bukharaeva E. A., Samigullin D., Nikolsky E., Vyskocil F.: Protein kinase A cascade regulates quantal release dispersion at frog muscle endplate. *J Physiol*.(Lond.) **538** (Pt 3), 837-48, 2002
- Vyskocil F.: Early postdenervation depolarization is controlled by acetylcholine and glutamate via nitric oxide regulation of the chloride transporter. *Neurochem Res*. **28** (3-4), 575-85, 2003
- Nikolsky E. E., Vyskocil F., Bukharaeva E. A., Samigullin D., Magazanik L. G.: Cholinergic regulation of the evoked quantal release at frog neuromuscular junction. *J Physiol*. (Lond.) **560** (Pt 1), 77-88, 2004