

**Department of Biology, Medicine and  
Geosciences of the Lithuanian Academy of  
Sciences**

**Acad. Limas Kupčinskas**

**July 4<sup>th</sup>, 2024 m**





# Department of Biology, Medicine and Geosciences (BMGS) of the Lithuanian Academy of Sciences



# Department of Biology, Medicine and Geosciences

22 - full members

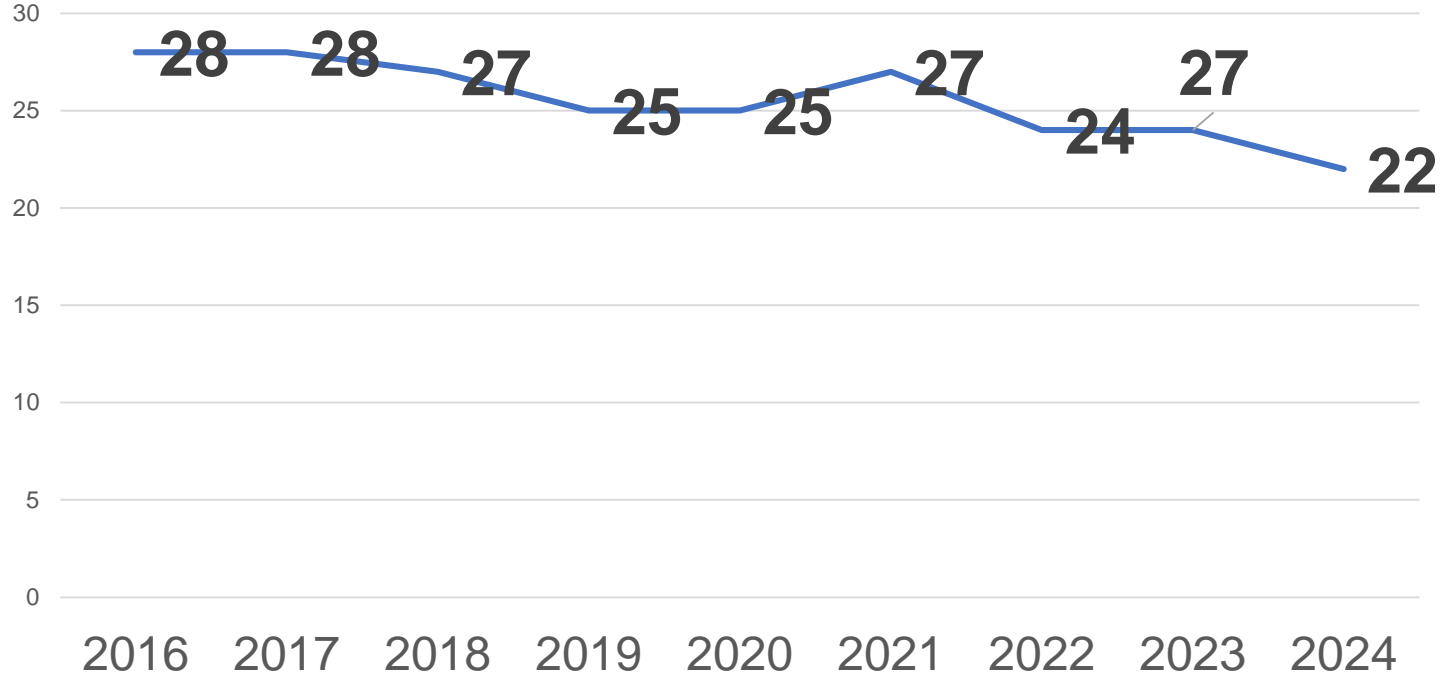
17 - members-emeritus

19 - foreign members (Germany, UK, Sweden, Estonia, Island, Japan, etc.)

# Sections of the department:

- **Section of General Biology**
- **Section of Medicine and Health Sciences**
- **Section of Biophysical Sciences**
- **Section of Geosciences**

# Dynamycs of full members of BMGS department



# **Section of General Biology:**

**Research in genetics, ecology, zoology, ornithology, parasitology.**

- **Studies on fundamentals of malarial parasites and hemosporidia (G. Valkūnas);**
- **Studies of the information interaction of organisms by chemical compounds (V. Būda).**
- **Human genome, identifying the origin of the genome of Europeans and Lithuanians, genetic causes and mechanisms of intellectual disability (V. Kučinskas);**
- **Cancer genetics – (S. Jarmalaitė)**
- **Ornithology, history of science (M. Žalakevičius)**

## **Section of Medicine and Health sciences: Research**

- **Cardiology (R. Žaliūnas, A. Laucevičius);**
- **Cardiosurgery (R. Benetis)**
- **Abdominal surgery, transplantology (K.Strupas)**
- **Neurology (D.Rastenyte)**
- **Gastroenterology (clinical, epidemiological, genome and microbiome studies of inflammatory and malignant digestive diseases; National Hepatitis C elimination program - L. Kupčinskas);**
- **Alergology-immunology (R. Dubakienė);**
- **Paleogenetics and Paleopathology (genome of European populations of different historical epochs, R. Jankauskas).**



**The largest in Baltic states university clinics  
(more than 2000 beds each)**



Lithuanian University of Health Sciences  
Hospital „Kaunas clinics“



Vilnius University „Santaros Clinics“

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# **Section of Biophysical sciences: Research in molecular biology, biochemistry, genomics, proteomics**

- **Studying the mechanisms of action of the immune systems of microorganisms (CRISPR), identified signaling pathways of cyclic oligonucleotides and showed their significance in activating nonspecific degradation of RNA. (V. Šikšnys)**
- **Studying the mechanisms of epigenetic inheritance, new methods of epigenome profiling (S. Klimašauskas);**
- **New methods for studying the structure of proteins and assessing quality (Č Venclovas);**
- **Analysis of yeast gene expression systems to obtain heterologous proteins and to develop new diagnostic tools (K. Sasnauskas).**
- **Single-cell research (A. Mažutis)**
- **Basic immunology, COVID-19 studies (A. Žvirblienė)**

**A step closer to the Nobel: Lithuanian Academy of Sciences full-member V.Šikšnys was awarded the elite Kavli Prize for discovery of CRISPR-Cas9**



# **Section of Geosciences: Research in geology, geography, climatology**

- **Radioisotopic studies of groundwater  $^{81}\text{Kr}/\text{Kr}$  of the deep strata of the Baltic region using an extremely sensitive laser magnetic-optical trap (R. Mokrik),**
- **The methods of nuclear geophysics examine the chronology of events in past environments and past climate changes (J. Mažeika);**
- **A. Grigelis is an active researcher of the history of Lithuanian geological science.**
- **Global warming studies (A.Bukantis)**