

**GÁBOR BALOGH, PhD***Senior Staff Scientist*

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Laboratory of Molecular
Stress Biology[PUBLICATION SUMMARY](#)[LIST OF PUBLICATIONS](#)**PERSONAL DATA**

Born 1960

QUALIFICATIONS

PhD (Biochemistry)

PROFESSIONAL EXPERIENCE

1989-1994	Dept. Pharmacology, Albert Szent-Györgyi Medical University, Szeged, Hungary (Research Fellow)
1994-	Inst. Biochem., BRC, HAS Szeged, research fellow
2012-2016	- research associate
2016-	- senior research associate
Visits:	
2000 (3 months)	visiting scientist, CNR, Naples
2001 (1 months)	visiting scientist, Ecole Normale Supérieure, Paris.
2002 (3 months)	visiting scientist CNR, Rome
2006-2012	regular visits in Univ. Regensburg

RESEARCH INTEREST

Lipidomics	Lipidomics techniques and information technology. Mass spectrometry of lipids. Development of lipidomics-based new diagnostic tools.
Membranes	Membrane and lipid biochemistry and biophysics, lipids in membrane function and signal transduction
Stress response	Biochemistry of stress-response

LANGUAGES

Hungarian (mother tongue)

English (advanced in written and spoken)

TEACHING ACTIVITY

PhD/ITC courses and practical demonstrations (Szeged, Budapest)

PHD SUPERVISION

MEMBERSHIPS

Member of the Hungarian Biochemical Society

OTHER ACTIVITIES

- 2006 Member of the local Organizing and Scientific Committee of 14th International Conference of Bioactive Lipids in Cancer, Inflammation and Related Diseases: Budapest, Hungary
- 2015 Member of the local Organizing and Scientific Committee of 14th International Conference of Bioactive Lipids in Cancer, Inflammation and Related Diseases: Budapest, Hungary
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SELECTED PUBLICATIONS

Péter Mária, Török Wanda, Petrovics-Balog Anna, Vígh László, Vécsei László, Balogh Gábor: Cerebrospinal fluid lipidomic biomarker signatures of demyelination for multiple sclerosis and Guillain–Barré syndrome, *SCIENTIFIC REPORTS* 2020, 10: (1) 18380

Balogh Gábor, Chakraborty Payal, Dugmonits Krisztina N., Péter Mária, Végh Attila G., Vígh László, Hermes Edit: Sustained maternal smoking-associated changes in the physico-chemical properties of fetal RBC membranes might serve as early markers for vascular comorbidities, *BIOCHIMICA ET BIOPHYSICA ACTA-MOLECULAR AND CELL BIOLOGY OF LIPIDS* 2020, 1865: (4) 158615

Makarova Maria, Peter Maria, Balogh Gabor, Glatz Attila, MacRae James I., Lopez Mora Nestor, Booth Paula, Makeyev Eugene, Vigh Laszlo, Oliferenko Snezhana: Delineating the Rules for Structural Adaptation of Membrane-Associated Proteins to Evolutionary Changes in Membrane Lipidome, *CURRENT BIOLOGY* 2020, 30: pp. 367-380.

Szűcs Gergő, Sója Andrea, Péter Mária, Sárközy Márta, Bruszel Bella, Siska Andrea, Földesi Imre, Szabó Zoltán, Janáky Tamás, Vígh László, Balogh Gábor, Csont Tamás: Prediabetes Induced by Fructose-Enriched Diet Influences Cardiac Lipidome and Proteome and Leads to Deterioration of Cardiac Function prior to the Development of Excessive Oxidative Stress and Cell Damage, *OXIDATIVE MEDICINE AND CELLULAR LONGEVITY* 2019: 3218275

Peter M, Glatz A, Gudmann P, Gombos I, Torok Z, Horvath I, Vigh L, Balogh G: Metabolic crosstalk between membrane and storage lipids facilitates heat stress management in *Schizosaccharomyces pombe.*, *PLOS ONE* 2017, 12: (3) e0173739

Balogh G, Peter M, Glatz A, Gombos I, Torok Z, Horvath I, Harwood JL, Vigh L: Key role of lipids in heat stress management, *FEBS LETTERS* 2013, 587: (13) pp. 1970-1980.

Balogh Gabor, Maulucci Giuseppe, Gombos Imre, Horvath Ibolya, Torok Zsolt, Peter Maria, Fodor Elfrieda, Pali Tibor, Benko Sandor, Parasassi Tiziana, De Spirito Marco, Harwood John L, Vigh Laszlo: Heat Stress Causes Spatially-Distinct Membrane Re-Modelling in K562 Leukemia Cells, *PLOS ONE* 2011, 6: (6) e21182

Balogh G, Peter M, Liebisch G, Horvath I, Torok Z, Nagy E, Maslyanko A, Benko S, Schmitz G, Harwood JL, Vigh L: Lipidomics reveals membrane lipid remodelling and release of potential lipid mediators during early stress responses in a murine melanoma cell line, *BIOCHIMICA ET BIOPHYSICA ACTA-MOLECULAR AND CELL BIOLOGY OF LIPIDS* 2010, 1801: (9) pp. 1036-1047.

Balogh G, Horvath I, Nagy E, Hoyk Z, Benko S, Bensaude O, Vigh L: The hyperfluidization of mammalian cell membranes acts as a signal to initiate the heat shock protein response, FEBS JOURNAL 2005, 272: pp. 6077-6086.

Vigh L, Literati NP, Horvath I, Torok Z, Balogh G, Glatz A, Kovacs E, Boros I, Ferdinandy P, Farkas B, Jaszlits L, Jednakovits A, Koranyi L, Maresca B: Bimoclomol: A nontoxic, hydroxylamine derivative with stress protein-inducing activity and cytoprotective effects, NATURE MEDICINE 1997, 3: (10) pp. 1150-1154.