

Program

Friday, July 1

9:00–9:10 Introductory remarks

SESSION 1. (9:10–11:10; chair: S. Knox)

9:10–9:40 **I. Jerman** INVITED TALK

On the origin of life based on coherent modes of water and matter

9:40–10:10 **J. Kobilková**

Morphological cancer diagnostics: Displayed disorder

10:10–11:10 **J. A. Tuszyński** INVITED TALK

On the biophysical properties of microtubules, their technological potential and importance in health and disease

11:10–11:30 Break

SESSION 2. (11:30–13:00; chair: A. Foletti)

11:30–12:00 **L. Schwartz** INVITED TALK

A reasoned classification of human diseases

12:00–12:30 **A. Jandová**

Disease of the cellular energy system

12:30–13:00 **M. V. Satarić** INVITED TALK

Small post-translational modifications of microtubules make great differences in their functions

13:00–14:30 Lunch break

SESSION 3. (14:30–16:00; chair: K. P. Michalak)

14:30–15:30 **A. Bandyopadhyay** INVITED TALK

Measurement of electronic properties of microtubule

15:30–16:00 **M. Molski**

Quasi-quantum model of carcinogenesis and chemotherapy

17:00–18:30 Opening session

Welcome address (Carolinum, Ovocny Trh)

Saturday, July 2

8:50 OPENING

SESSION 4. (9:00–11:00; chair: J. A. Tuszyński)

9:00–10:00 **M. V. Sataříč** INVITED TALK
Dissipative solitons in cellular microtubules

10:00–10:30 **J. Pokorný Jr.**
Stark effect and oncogene mutation

10:30–11:00 **A. Bandyopadhyay** INVITED TALK
Quantum anomaly in the single brain microtubule

11:00–11:15 Break

SESSION 5. (11:15–13:15; chair: I. Jerman)

11:15–12:45 **G. H. Pollack** INVITED TALK
The fourth phase of water: A central role in health

12:45–13:15 **J. Pokorný**
Nature of life

13:15–14:30 Lunch break

SESSION 6. (14:30–16:00; chair: J. Vrba)

14:30–15:00 **S. S. Popova**
Terahertz electromagnetic coherent waves and Fröhlich vibration interaction

15:00–16:00 **A. Foletti** INVITED TALK
Translational aspects of electromagnetic information transfer through aqueous system

16:00–16:15 Break

SESSION 7. (16:15–18:45; chair G. H. Pollack)

16:15–17:15 **K. P. Michalak** INVITED TALK
Biochemical aspects of energy production in cancers

17:15–17:45 **K. P. Michalak** INVITED TALK
Possible regulation of Krebs Cycle enzymes activity using LMK-homeopathised and allopatic Krebs cycle metabolites – ‘case study’ analysis

17:45–18:15 **A. Rydberg**
Amoebae as a model for human cells in bone resorption applications

18:15–18:45 **M. Cifra**
Oxidation induced photon emission of tubulin and microtubules

Sunday, July 3

SESSION 8. (9:00–11:00; chair: A. Bandyopadhyay)

9:00–10:00 **J. Torres** INVITED TALK

THz near-field spectroscopy of proteins: towards detection of long-range electrodynamic interactions

10:00–10:30 **J. A. Tuszyński** INVITED TALK

A critical analysis of possible interactions of 200 kHz electric fields with biological cells

10:30–11:00 **S. S. Knox** INVITED TALK

A murine model of ion channel regulation in the treatment of breast cancer

11:00–11:15 Break

SESSION 9. (11:15–13:15; chair: M. Sataříč)

11:15–11:45 **V. Periček–Krapež**

Universal language and transfer of coherent modes – a possibility of subtle chemistry and pharmacology

11:45–12:15 **J. Mattová**

Polymer conjugate of Auger's electrons emitter for targeted therapy of cancer

12:15–12:45 **C. Vedruccio**

Electromagnetic detection of Colon and Liver Cancer by means of the Bioscanner "Trimprob"

12:45–13:15 **A. Čoček**

Adherence capability of T lymphocytes in vitro in the course of the treatment of head and neck cancer

13:15–14:30 Lunch break

SESSION 10. (14:00–16:00; chair: J. Pokorný)

14:30–15:00 **Yu. P. Chukova**

Cancer and the problem of weak influences

15:00–15:30 **M. Teplan**

Electromagnetic resonance in biological systems: Myth or reality?

15:30–16:00 **J. Vrba**

Microwave principles and technologies in medicine

16:00–16:15 Break

SESSION 11. (15:00–19:00; chair: J. Pokorný)

16:15–16:45 **J. Vrba**

Animal EM exposure chamber with well defined dosimetry and results of first biological experiments

16:45–17:15 **M. Cifra**

Optical properties of tubulin

17:15–18:00 Discussion

Electromagnetic activity of living cells and experimental methods