



## WORKSHOP ON NANOMEDICINE AND IMMUNOTHERAPY

8 am – 18 pm

8h - 18h

Coordinators

Coordenadores

Andris Figueiroa Bakuzis / Romualdo Barroso de Sousa

Andris Figueiroa Bakuzis / Romualdo Barroso de Sousa

### MODULE 1

### MÓDULO 1

8 am – 8:40 am

8h – 8h40

Designer nanoparticles for magnetic hyperthermia

**Hao Zeng** (University at Buffalo - USA)

8:40 am – 9:00 am

8h40 – 9h

Magnetic hysteresis Tailored for Nanomedicine applications

**Flávio Garcia** (CBPF - RJ)

9 am – 9:20 am

9h – 9h20

Layer-by-layer engineered MnFe<sub>2</sub>O<sub>4</sub> nanoplatforms for magnetic-assisted release of curcumin.

**Marcelo Sousa** (UnB – DF)

9:20 am – 9:30 am

9h20 – 9h30

Magnetoliposomes for heat-induced drug delivery

**Emílio Cintra** (UFG – GO)

9:30 am – 9:40 am

9h30 – 9h40

Core-shell nanoheaters for low field magnetic hyperthermia

**Marcus Araújo** (UFG – GO)

9:40 am – 10 am

9h40 – 10h

Hybrid Nanostructures as Multifunctional Tools for Thermal Sensing, Photothermal Therapy and Controlled Magnetic Heating

**Ueslen Rocha** (UFAL – AL)

10 am – 10:30 am

10h – 10h30

Break

Intervalo

### MODULE 2

### MÓDULO 2

10:30 am – 11am

10h30 – 11h

History and evolution of Cancer Immunotherapy

**Romualdo Barroso de Sousa** (Hosp. Sírio-Libanês – DF)



**11 am – 11:30 am** Immunotherapy with check point blockade and the 2018 Nobel Prize in Medicine  
**11h – 11h30**

**Simone Fonseca** (UFG – GO)

**11:30 am – 11:50 am** Specific T cell induction using iron oxide based nanoparticles as subunit vaccine adjuvant.

**11h30 – 11h50**  
**Ana Junqueira-Kipnis** (UFG – GO)

**11:50 am – 12:30 am** In situ vaccination for tumor immunotherapy: treat locally, respond systemically  
**11:50h – 12h30**

**Steven Fiering** (Dartmouth Geisel School of Medicine – USA)

**12:30 pm – 12:50 pm** Immunogenicity of 4T1 and CT26 cancer cells treated with photodynamic therapy  
**12h30 – 12h50**

**Luis Muehlmann** (UnB – DF)

### MODULE 3

### MÓDULO 3

**2 pm – 2:40 pm** Prospect of Magnetic Particle Imaging for Breast Cancer Detection  
**14h – 14h15**

**Frank Wiekhorst** (Physikalisch-Technische Bundesanstalt – Germany)

**2:40 pm – 3:00 pm** Combining ultrasound and magnetism in a multi-purpose imaging system  
**14h40 – 15h**

**Theo Pavan** (USP – SP)

**3 pm – 3:20 pm** Recent progresses in fluorescence and thermal images with applications in nanomedicine  
**15h – 15h20**

**Carlos Jacinto** (UFAL – AL)

**3:20 pm – 3:35 pm** Multifunctional nanohybrids for thermal therapy, near infrared imaging and nanothermometry  
**15h20 – 15h35**

**Navadeep Shrivastava** (UFG - GO)

**3:35 pm – 3:50 pm** Infrared thermometry for non-invasive detection of the intratumoral temperature during magnetic hyperthermia  
**15h35 – 15h50**

**Harley Rodrigues** (IFG - GO)

**3:50 pm – 4:10 pm** Magnetoalbumin-based nanocarrier for photothermal therapy  
**15h50 – 16h10**

**Elisangela Silveira-Lacerda** (UFG – GO)

**4 pm – 4:30 pm** Break  
**16h – 16h30** Intervalo



## MODULE 4 MÓDULO 4

4:30 pm – 4:50 pm      Understanding the role of immune system components on the clearance of drug delivery nanoparticles from circulation

16h30 – 16h50

**Eliana Lima** (UFG – GO)

4:50 pm – 5:05 pm      Erythrocyte membrane-coated magneto-fluorescent nanocarriers for thermal therapy and heat-induced immunological responses

16h50 – 17h05

**Ailton Sousa-Junior** (UFG - GO)

5:05 pm – 5:25 pm      Lymphocytes tumor infiltrated in metastatic lesions treated with Liposomes containing Doxorubicin and Paclitaxel.

17h05 – 17h25

**Joao Paulo Longo** (UnB – DF)

5:25 pm – 6 pm      Immunotherapy in Breast Cancer: Where are we, and where are we going to?

17h25 – 18h

**Romualdo Barroso de Sousa** (Hosp. Sírio-Libanês – DF)