# 2nd CAM conference
05./06.02.2024

Prof. Guojun Sheng, Kumamoto University Japan
Prof. Sheng uses the avian animal model and studies cellular and molecular mechanisms regulating cell fate changes during early embryonic development. His research focuses on the epithelial-to-mesenchymal transition (EMT) process during mesoderm and early cardiovascular/hematopoietic system formation.

Mini-Symposium – Inovotion, La Tronche, France

inovotion
WHICH MOLECULE WILL STAND OUT
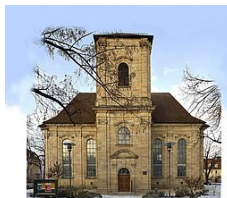
KREUZ+QUER
Haus der Kirche Erlangen

Kreuz+Quer, Bohlenplatz 1, 91054 Erlangen, Germany

Monday, 05.02.2024

08:00 am	Registration
09:00 am	Opening & Greetings
09:20 am	Musical Opening by Yile Huang

KEY NOTE LECTURE

09:30 am **Guojun Sheng, Kumamoto University**
Developmental origin and maturation of chicken chorioallantoic membrane

IMAGING moderated by Julia Greiser & Thomas Winkens

10:10 am **Thomas Winkens, Jena University Hospital – Plenary Lecture**
Ostrich embryos for in-ovo imaging – Sequential computed tomography imaging of development and normal distribution of F-18-fluorodeoxyglucose on positron emission tomography

10:25 am **Jan Schulze, University of Liverpool**
Translating mesothelioma treatments targeting metabolism from in vitro studies towards a stratified in ovo PDX approach

10:35 am **Katarína Benčurová, Medical University of Vienna**
Establishment of a patient-derived in-ovo xenograft model for colorectal cancer imaging

10:45 am **Colmar Hilbrig, Ulm University**
Assessment of the EPR-mediated accumulation of [^{89}Zr]Zr-DFO-HSA in both the CAM and mouse xenograft models

10:55 am	**COFFEE BREAK**

IMAGING moderated by Julia Greiser & Thomas Winkens

11:15 am **Julia Greiser, Jena University Hospital – Plenary Lecture**
The use of the ostrich embryo model during the development of liver-specific radiotracers - a bench-to-bedside story

11:30 am **Elisabeth Non Gash, University of Liverpool**
Investigating hypoxia in a chick chorioallantoic model of glioblastoma using magnetic resonance imaging and spectroscopy

11:40 am **Thomas Winkens, Jena University Hospital**
Ostrich embryos for in-ovo nuclear medicine imaging – motivation, implementation and potential application fields

Monday, 05.02.2024

IMAGING moderated by Julia Greiser & Thomas Winkens

11:50 am   **Veronika Huntošová, Centre of Biosciences Sas**
Screening of mesoporous metal organic framework for bioimaging application on Quail chorioallantoic membrane

12:00 am   **Marta Pomraenke, Jena University Hospital**
The Ostrich Embryo Model as a feasible, large-size alternative to Chick Embryo Chorioallantoic Membrane Assay

12:10 am   **Johanna Buschmann, University Hospital Zurich**
Iron carbide nanoparticles - potential risks on embryogenesis using the chicken embryo model

---

12:10 am   **LUNCH & POSTER SESSION**

CANCER RESEARCH moderated by Ruby Yun-Ju Huang & Regine Schneider-Stock

01:45 pm   **Regine Schneider-Stock, University Hospital Erlangen – Plenary Lecture**
The CAM Model - Spatial resolution of tumor xenografts – new interpretations

02:00 pm   **Ruby Yun-Ju Huang, National Taiwan University – Plenary Lecture**
Utilizing the CAM model for assessment of EMT related mechanisms

02:15 pm   **Cathy Richards, Rcsi**
A novel preclinical in vivo model for pancreatic cancer and cancer-associated fibroblasts co-cultures

02:25 pm   **Filipa Dias, University of Porto**
Repurposing the CAM model to the study of disseminating intracellular infections

02:35 pm   **Nadine Wiesmann-Imilowski, University Medical Center Mainz**
Evaluation of the response to radiotherapy in the chick chorioallantoic membrane (CAM) assay

02:45 pm   **Michela Corsini, Univeresity of Brescia**
Chick embryo CAM as a model for the study of matrix anisotropy in tumor angiogenesis

---

PITFALLS LECTURE

02:55 pm   **Kerstin Hübner, University Hospital Erlangen**
Olga Perkas, Jena University Hospital
Jan Schulze, University of Liverpool

Monday, 05.02.2024

03:10 pm	**COFFEE BREAK**

HANDS ON TRAINING

03:45 pm	**Kerstin Hübner, University Hospital Erlangen** **Marta Pomraenke, Jena University Hospital** **Nassim Ghaffari-Tabrizi-Wizsy, Medical University of Graz**
04:45 pm	**Philipp Kainz, KML Vision GmbH** *Unleashing AI in Bioimaging with IKOSA*

3R NETWORK CENTERS moderated by Nassim Ghaffari-Tabrizi-Wizsy & Dagmar Fischer

04:55 pm	**Marta Teixeira Pinto, i3S -Instituto de Investigação e Inovação em Saúde, Universidade do Porto – Plenary Lecture** *Hatching a CAM-dedicated scientific platform*
05:10 pm	**Judy Coulson, University of Liverpool – Plenary Lecture** *Finding new ways to target tumour suppressor loss in mesothelioma: a 3Rs journey from BAP1 to the Liverpool Egg Facility*
05:25 pm	**Michael To Vinh, 3R Competence Network North Rhine-Westphalia** *Medical progress in line with the best possible animal welfare*
05:35 pm	**Lorenz Faihs, Harvard Medical School** *Ethical Considerations of the Chick Embryo Chorioallantoic Membrane (CAM) Assay as an In Vivo Research Model*
05:45 pm	**Nuno Goncalves, European Animal Research Association (EARA) – Plenary Lecture** *Animal Research: Time To Talk!*

ROUND TABLE DISCUSSION + Q&As moderated by Ruby Yun-Ju Huang

06:05 pm	**Nuno Goncalves, European Animal Research Association (EARA)** **Jean Viallet, Inovotion** **Regine Schneider-Stock, University Hospital Erlangen** **Nassim Ghaffari-Tabrizi-Wizsy, Medical University of Graz** **Guojun Sheng, Kumamoto University**

06:45 pm	**DINNER & GET TOGETHER**

Tuesday, 06.02.2024

08:30 am	Musical opening by Yile Huang

SYMPOSIUM

08:50 am	**Inovotion, France**

12:00 am	**LUNCH & POSTER SESSION**

01:15 pm	Poster Price & Presentation of the winner

CANCER RESEARCH moderated by Georg Flügen & Marta Teixeira Pinto

01:30 pm **Georg Flügen, University Hospital Düsseldorf – Plenary Lecture**
Use of the CAM model in metastasis research

01:45 pm **Andreas Ettner-Sitter, Regensburg University Hospital**
Patient-derived Xenografts Generated from Circulating Cancer Stem Cells in a 3D-in-vivoModel as a Novel Concept for Research and Clinical Decision Making in Pancreatic Cancer

01:55 pm **Rainer Schindl, Medical University Graz**
Continuous Local Chemotherapy with Iontronic Devices for Effective Treatment of ex ovo Brain Tumors

02:05 pm **H. Hazal Husnugil, Middle East Technical University**
Nutrient restriction in cancer cells activate multiple signaling pathways for survival

02:15 pm **Cola Chan, National Taiwan University**
Using CAM model to assess the role of SNAI1 acetylation in HGSOC progression and metastatic tropism

02:25 pm **Kerstin Hübner, University Hospital Erlangen**
Spatial whole transcriptomic analysis in CAM ovografts identifies collective migration in TROP2-negative cell clusters at the tumor invasion front

02:35 pm **Ann Hopkins, RCSI University of Medicine and Health Sciences**
JAMming on the brakes of cancer progression: Complementary in vivo approaches support the feasibility of targeting Junctional Adhesion Molecule-A (JAM-A) to reduce breast tumour aggressiveness.

02:45 pm **Maike Busch, University Of Duisburg-Essen**
New drug delivery approaches: Efficacy of functionalized gold nanoparticles for intraocular treatment of chemoresistant retinoblastoma

Tuesday, 06.02.2024

| 02:55 pm | **COFFEE BREAK** |

Angiogenesis and biomaterials moderated by Domenico Ribatti & Nassim Ghaffari-Tabrizi-Wizsy

03:45 pm **Domenico Ribatti, University of Bari – Plenary Lecture**
The CAM assay: an historical reappraisal

04:00 pm **Shari Aerts, Ghent University**
To crack the egg or not: The in ovo versus ex ovo CAM model in (veterinary) oncology research

04:10 pm **Agata Montagner, Regensburg University Hospital**
The importance of FOXO1 and microRNA-21 in the angiogenesis of distal cholangiocellular carcinoma and pancreatic cancer

04:20 pm **Jonas Eckrich, University medical Center Mainz**
Evaluation of antivascular effects of cold atmospheric plasma on solid tumors in the chick chorioallantoic membrane (CAM) assay

04:30 pm **Pedro Gomes, Bonelab, FMDUP - Faculty of Dental Medicine, U. Porto, LAQV**
Integrative angiogenesis and osteogenesis assessment in the chick embryo model

04:40 pm **Sarah Barnett, University of Liverpool**
Evaluating novel drug delivery systems for treatment of mesothelioma using the chick embryo chorioallantoic membrane (CAM) xenograft model

04:50 pm **Antony Wheatley, University of Galway**
Study of angiogenic effect of VEGF in the microcirculation of the chick CAM using intravital fluorescent microscopy (IVFM) with FITC-dextran and Hoechst33342-labelled erythrocytes

05:00 pm **Izabela Drozdz, Department of Surgery and Pathology, Royal College of Surgeons Ireland, University of Medicine and Health Sciences**
Unlocking Multiple Myeloma Insights: Establishment of a CAM model for MM Tumour Growth and Drug Testing

| 05:10 pm | Summary & Goodbye |

Posters

P1   **Christian Bayer, Gottfried Schatz Research Center – Division of Medical Physics and Biophysics Medical University of Graz**
CAM Assay as an in vivo model for the assessment of iontronic devices for cancer therapy

P2   **Marta Checchi, University of Modena and Reggio Emilia**
Angiogenesis and osteogenesis two finely coupled processes in bone injury repair: comparison of bioglasses in granular or scaffold formulation by CAM assay

P3   **Anca Maria Cimpean, Victor Babes University Of Medicine And Pharmacy Timisoara Romania**
Biomaterials vascularization: because even blood vessels need good interior design!

P4   **Zuzana Demcisakova, University of Veterinary Medicine and Pharmacy in Kosice**
Morphological analysis of chicken chorioallantoic membrane depending on in ovo and ex ovo culture conditions

P5   **Rita Araujo, University of Porto**
Killing more than bacteria: the anti-angiogenic effects of tetracyclines in the CAM model

CAM conference

Posters

P6	**Liliana Grenho, Faculdade de Medicina Dentária da Universidade do Porto**
	Adventures in settling an in ovo infection model for assessing antimicrobial activity of innovative bioconstructs
P7	**Jarmila Jedelská, Philipps-Universität Marburg**
	Feasibility of the chick chorioallantoic membrane model for preclinical studies on thermal ablations
P8	**Colmar Hilbrig, Ulm University**
	The chicken egg chorioallantoic membrane (CAM) model for in vivo stability determination of CXCR4 targeting peptides
P9	**Mariana Máčajová, Centre Of Biosciences Sas**
	The effect of topical administration of bacterial lipopolysaccharide and phosphatidylglycerol on ex ovo Japanese quail chorioallantoic membrane
P10	**Valeria Elisa Marotta, University of Liverpool**
	DNA-damage dependent KIFC1 accumulation: translation from cell biology to in ovo breast cancer model
P11	**Ramona Erber, University Hospital Erlangen**
	The Chorioallantoic Membrane Xenograft Assay as a Reliable Model for Investigating the Biology of Breast Cancer

CAM conference

Posters

P11   **Gabriella Meier Bürgisser, University Hospital Zurich**
Antibacterial copper oxide nanoparticles dispersed in PLGA/amorphous calcium phosphate hybrid nanocomposite for bone tissue engineering – impact of copper oxide concentration on angiogenesis

P12   **Deeksha Nursimulu, University of Mauritius**
The chorio-allantoic membrane (CAM) assay as a suitable experimental model to assess angiogenic effects of cortisol

P13   **Carla Palumbo, University of Modena and Reggio Emilia**
CAM-to-CAM organ cultures: a challenge for pre-clinical models

P14   **David Schorr, Philipps-Universität Marburg**
Characterization and Optimization of Embolization Gels for Use in Arteriovenous Malformations

P15   **Zuzana Tirpáková, University of Veterinary Medicine and Pharmacy In Kosice**
Quail Embryo as an Alternative to Chicken Embryo for Biocompatibility and Angiogenic Potential Testing

P16   **Jan Westhoff, Friedrich-Alexander-Universität Erlangen-Nürnberg**
The Ex Ovo Shell-less Hen's Egg Model as a Platform for Preclinical Assessment of Nanomedicines

CAM conference

Posters

|	
P17	**Ruigu Yan, National Taiwan University**
	Evaluating metabolism and tumor aggressiveness in a highly metastatic ovarian clear cell carcinoma (OCCC) cell line JHOC9
P18	**Marta Teixeira Pinto, i3S -Instituto de Investigação e Inovação em Saúde, Universidade do Porto**
	Anti-osteosarcoma activity of robinetin and myricetin: in vitro and CAM studies
P19	**Raphela Ranjan, Technical University Of Munich**
	In ovo modeling of tumor morphogenesis, stromal remodeling and metastatic dissemination in pancreatic ductal adenocarcinoma
P20	**Ayca Uvez, İstanbul University-Cerrahpasa**
	Anti-Angiogenic Effects of New Platinum(II) Complexes With Phosphine And Saccharinate Ligand In Vitro And In Vivo
P21	**Ryan McNelis, University of Galway**
	An investigation into the effect of hypoxia on angiogenesis in the chick chorioallantoic membrane (CAM).
P22	**Ruijin Huang, University of Bonn**
	Creating an artificial intelligence-based tool for classification of angiogenesis in the chorioallantoic membrane model

CAM conference

We have to thank the following sponsors
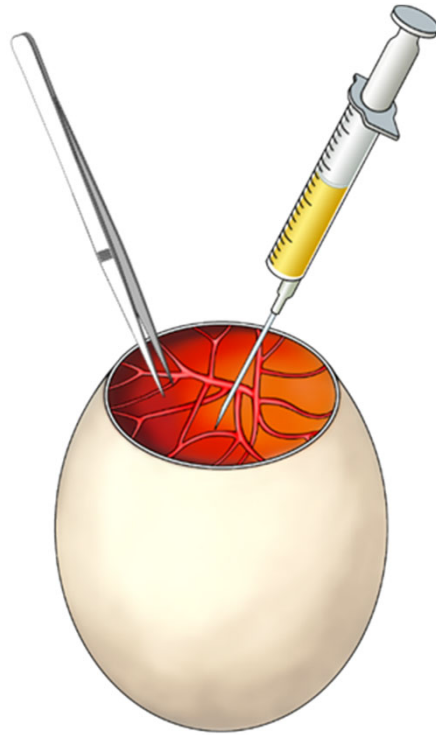
Questions?

CAM CON Orga Team:
ph-camcon@uk-erlangen.de
+49 9131 8536073