



5th EACR Conference

A Matter of Life or Death

Mechanisms, Models and Therapeutic

Opportunities

12 - 14 February 2020 Bergamo, Italy

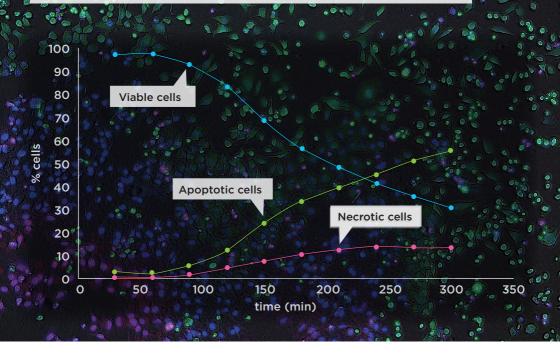
Scientific Programme Committee

Patrizia Agostinis, Peter de Keizer, Simone Fulda, Verena Jendrossek, Marion MacFarlane



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A Matter of Life or Death:

Mechanisms, Models and Therapeutic Opportunities

#EACRLifeOrDeath20

Free WiFi is available - ask at registration desk

Wednesday 12th February 2020

- 12:00 REGISTRATION 🖕 until 13:30
- 12:30 WELCOME LUNCH & TRADE EXHIBITION 🗶
- Posters 1-30 can be put up

13:30 CONFERENCE WELCOME Scientific Programme Committee

SESSION 1: CANCER METABOLISM, AUTOPHAGY AND TUMOR MICROENVIRONMENT Chair: Verena Jendrossek

13:40 THE EMBO KEYNOTE LECTURE

Sharon Tooze

The Francis Crick Institute, UK "Molecular mechanisms of autophagosome formation"

Q&A: 14:10 - 14:25

14:25 Katja Simon

Kennedy Institute of Rheumatology, UK "Autophagy in cell fate decisions in the immune & hematopoietic system"

Q&A: 14:45 - 14:55

14:55 Monica Vara-Perez

VIB – KULeuven, Belgium Proffered Paper 1: "BNIP3 sustains HIF1 $\!\alpha$ to promote melanoma growth and dissemination"

Q&A: 15:05 - 15:10

- 15:10 EXHIBITOR INTRODUCTIONS 60-second intro by each company
- 15:20 COFFEE BREAK & TRADE EXHIBITION 💼

15:50 Patrizia Agostinis

VIB – KULeuven, Belgium "Autophagy in tumor angiogenesis"

Q&A: 16:10 - 16:20

16:20 Almut Schulze

DKFZ, Germany "Understanding the complex role of lipid metabolism in cancer"

Q&A: 16:40 - 16:50

16:50 Sarah-Maria Fendt VIB-KU Leuven, Belgium "The role of metabolism in metastasis formation"

Q&A: 17:10 - 17:20

- 17:20 POSTER SPOTLIGHTS 3 top-scoring abstracts (posters 1-3) presented in 3 minute 'flash talks'
- 17:30 NETWORKING RECEPTION 🔀 🖣 An opportunity to make new connections over a drink and some light food
- 18:00 POSTER DISCUSSION SESSION 1 until 19:30 Posters 1-30 will be presented

Thursday 13th February 2020

- 08:30 POSTER VIEWING & TRADE EXHIBITION 🚖 until 09:00 Coffee / tea available
- 08:45 INDUSTRY SPOTLIGHT VECTORBUILDER

Matthew Wheeler

"VectorBuilder - Advances in vector construction and virus packaging"

SESSION 2: CELL DEATH MECHANISMS Chair: Peter de Keizer

09:00 KEYNOTE LECTURE

René Bernards

NKI, Netherlands "Exploiting senescence for the treatment of cancer"

Q&A: 09:30 - 09:45

09:45 Nataly Kravchenko-Balasha

The Hebrew University of Jerusalem, Israel Proffered Paper 2: "Deciphering the intra-tumor and inter-patient signaling heterogeneity in cancer for the rational design of patient specific drug cocktails"

Q&A: 09:55 - 10:00

10:00 David Wallach

Weizmann Institute of Science, Israel "Novel insights into the functional roles of the signaling pathway for necroptotic death"

Q&A: 10:20 - 10:30

10:30 COFFEE BREAK & TRADE EXHIBITION 堂



11:05 Marion MacFarlane

MRC Toxicology Unit, UK

"Uncovering the Therapeutic Potential of BH3-mimetics in Patient-relevant Preclinical Models of Mesothelioma"

Q&A: 11:25 - 11:35

11:35 Samuel Sidi

Icahn School of Medicine at Mount Sinai, USA Proffered Paper 3: "FANCI Functions as a Repair/Apoptosis Switch in Response to DNA Crosslinks"

Q&A: 11:45 - 11:50

11:50 Dagmar Kulms

TU Dresden, Germany "Caspase-8 promotes progression of p53-proficient tumors"

Q&A: 12:10 - 12:20

12:20 POSTER SPOTLIGHTS

3 top-scoring abstracts (posters 31-33) presented in 3 minute 'flash talks'

12:30 LUNCH & TRADE EXHIBITION 🗡

13:00 POSTER DISCUSSION SESSION 2

Posters 31-59 will be presented

SESSION 3: SENESCENCE, CANCER AND THERAPEUTIC TARGETING Chair: Patrizia Agostinis

14:30 Manuel Serrano

ICREA Professor, IRB Barcelona, Spain "Cellular senescence as a driver of multiple human diseases"

Q&A: 14:50 - 15:00

15:00 Marco Demaria

ERIBA/UMCG, The Netherlands "Modulating senescence-associated phenotypes to prevent side effects of cancer therapy"

Q&A: 15:20 - 15:30

15:30 Olivier E. Pardo Imperial College, UK Proffered Paper 4: "Targeting the S6 kinase, RSK4, prevents chemoresistance and metastasis in lung cancer"

Q&A: 15:40 - 15:45

15:45 COFFEE BREAK & TRADE EXHIBITION 单

16:15 Laura Conti

MBC, University of Torino, Italy Proffered Paper 5: "The immunotargeting of the xCT cystine/glutamate antiporter targets cancer stem cells and potentiates the efficacy of Her2-targeted immunotherapies in breast cancer"

Q&A: 16:25 - 16:30

16:30 Peter de Keizer

UMC Utrecht, The Netherlands "Targeting Heterogeneity in Senescence against Aging and Cancer"

Q&A: 16:50 - 17:00

17:00 Daniel Murphy

CRUK Beatson Institute, UK "Partners in crime: MYC, RAS and cell-extrinsic mechanisms of oncogenic cooperation"

Q&A: 17:20 - 17:30

17:30 DISCUSSION FORUM

until 18:30

Chaired by Patrizia Agostinis, the panel of invited speakers will tackle this important question.

"Novel frontiers in regulated cell death and senescence: what is the desirable type of cell inactivation in cancer therapy?"

19:00 CONFERENCE DINNER 🗡

Optional ticketed dinner at Taverna Valtellinese

Friday 14th February 2020

- 08:30 POSTER VIEWING & TRADE EXHIBITION () until 09:00 Coffee / tea available
- 08:45 INDUSTRY SPOTLIGHT TECAN **Stefan Haberstock** "Optimization of drug titration in cell based assays"

09:00 MEET THE EXPERTS TALK

Silvia Formenti & Verena Jendrossek

An interactive session with a focus on women in science where our two experts will share from their personal and professional perspectives on the path to scientific leadership.

SESSION 4: HARNESSING CELL DEATH AND CANCER VULNERABILITIES FOR CANCER THERAPY

Chair: Marion MacFarlane

09:45 **Clemens Schmitt** MDC Berlin, Germany "Post-senescence: a matter of life and death"

Q&A: 10:05 - 10:15

10:15 Verena Jendrossek Universität Duisburg-Essen, Germany "Novel opportunities for a biologic optimization of radiotherapy"

Q&A: 10:35 - 10:45

10:45 COFFEE BREAK & TRADE EXHIBITION 单

11:15 Serk In Park

Korea University College of Medicine, South Korea Proffered Paper 6: "Mobilization of Monocytic Myeloid-Derived Suppressor Cells (MDSC) Is Regulated by Osteoblast Activation by PTH1R"

Q&A: 11:25 - 11:30

11:30 Brent Stockwell

Columbia University, USA "Ferroptosis: mechanisms and therapeutic potential"

Q&A: 11:50 - 12:00

12:00 CLOSING KEYNOTE Silvia C. Formenti

> Weill Cornell Medicine, USA "Radiotherapy to convert the tumor into an in situ vaccine"

Q&A: 12:30 - 12:45

12:45 CONFERENCE SUMMARY Scientific Programme Committee

13:00 LUNCH & DEPART 🗶 🖕

EACR-Worldwide Cancer Research Meeting Bursary Award winners

Congratulations to the winners of the EACR-Worldwide Cancer Research Meeting Bursaries. Each winner received a full registration free of charge and funds of up to 500 Euros to assist with the cost of travel.

EACR-Worldwide Cancer Research Meeting Bursary Award winners

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For more information about EACR Meeting Bursaries visit: eacr.org/meeting-bursary

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For more information visit worldwidecancerresearch.org

Registered in Scotland, No 152991, Charity No SCO22918 An important part of the EACR Conferences is the range of opportunities we aim to provide for participants to interact, discuss, reflect and build relationships and collaborations.

We hope you enjoy the dedicated interactive activities, which are listed below.

Networking Reception

Wednesday 12 February | 17:30-18:00

A complimentary buffet dinner will be served for all participants and exhibitors to enjoy on Wednesday evening. Why not take the opportunity to make new connections in an informal setting! The trade exhibition will be open during this time, and Poster Discussion Session 1 will follow at 18:00.

Discussion Forum

Thursday 13 February | 17:30-18:30

"Novel frontiers in regulated cell death and senescence: what is the desirable type of cell inactivation in cancer therapy?"

This session will provide an opportunity to discuss the role of regulated cell death and senescence elicited in response to various conventional or targeted therapeutic approaches, including but not limited to, immunogenic cell death and ferroptosis inducers, on inflammatory and immune responses. Chaired by Patrizia Agostinis, the panel of invited speakers will address which type of cancer cell death has the potential to increase the immunogenicity of cancer cells and overcome resistance mechanisms, what are potential adverse effects of therapy-induced cell death and senescence, and finally how this knowledge can be used to improve current and design novel therapeutic concepts.

This will be a forum for open discussion led by panel members Peter de Keizer, Silvia Formenti, Dagmar Kulms and Brent Stockwell. Participants are invited to ask their questions and contribute to the conversation.

Meet the Experts

Friday 14 February | 09:00-09:45

An interactive session with a focus on women in science where our speakers Silvia Formenti and Verena Jendrossek will share from their personal and professional perspectives on the path to scientific leadership. This session will take place in the lecture theatre, and will be a forum for open discussion where participants are encouraged to ask their questions.

Conference Dinner

Thursday 13 February | 19:00, Taverna Valtellinese

The Conference Dinner will take place on the final night of the meeting at the atmospheric Ristorante Taverna Valtellinese, a short walk from the conference venue. It will be an excellent opportunity for participants and speakers to get to know each other in a relaxed and informal environment. A four course meal will be served, with wine (or alternative) and coffee included in the ticket price.

Poster Spotlights

Wednesday 12 February | 17:20 - 17:30 | Posters 1 - 3 Thursday 13 February | 12:20 - 12:30 | Posters 31 - 33

Six high-scoring abstracts have been selected to give Poster Spotlight presentations. These three minute 'flash talks' will be presented in the lecture theatre.

Poster Discussion Sessions

Wednesday 12 February | 18:00-19:30 | Posters 1 - 30 Thursday 13 February | 13:00-14:30 | Posters 31 - 59

There are two dedicated 90-minute Poster Discussion Sessions in the programme. At these times, the presenters for that session should stand by their posters to discuss their work with other participants and invited speakers. As well as the dedicated sessions on Wednesday and Thursday, there will also be additional poster viewing opportunities each morning - coffee will be available from 08:30, and posters can be freely browsed.

Don't forget to let us have your feedback about these activities in the survey we send after the conference!

Partners and Sponsors

We'd like to thank all our sponsors for their support, interest and enthusiasm.

Premium Sponsors

Join our Premium Sponsors **Tecan** and **VectorBuilder** at their Industry Spotlights.

Thursday 13 February 08:45 – 09:00 Matthew Wheeler VectorBuilder "VectorBuilder - Advances in vector construction and virus packaging"



Friday 14 February 08:45 – 09:00 Stefan Haberstock Tecan "Optimization of drug titration in cell based assays"









Keynote Lecture Sponsor





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62 more stellar speakers



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Potential anti-melanoma activity of Imidazoline I1 receptor agonists

<u>Marija Vidosavljević</u>¹, Tatjana Srdić-Rajić¹, Olivera Mitrović-Ajtić², Marko Jevrić³, Jelena Grahovac¹

¹ Department of Experimental Oncology, Institute for Oncology and Radiology of Serbia, Belgrade, SERBIA, ² Department of Molecular Oncology, Institute for Medical Research, University of Belgrade, Belgrade, SERBIA, ³ Department of Surgery, Institute for Oncology and Radiology of Serbia, Belgrade, SERBIA

Melanoma is the deadliest form of skin cancer. Despite the advancements in targeted BRAF and MEK therapy and immunotherapies, metastatic melanoma patients still have poor prognosis with a median survival of 9 months and a long-term survival rate of 10%. There is an urgent need for novel treatment modalities that target metastatic melanoma. Imidazoline 11 receptor (IR1, IRAS, NISCH) is a scaffolding protein that has been shown to be a tumor suppressor in breast cancer through regulation of cancer cell survival, motility and invasion. IR1 role in metastatic melanoma has not been investigated to date. Of importance, several IR1 agonists are clinically approved for treatment of hypertension. The aim of this study was to examine the IR1 expression in melanoma and the effects of IR1 agonists on melanoma cell viability. To confirm the target expression, we first determined IR1 levels in primary and metastatic melanoma patient samples by gRT-PCR and immunohistochemistry. We found that it is expressed in primary tumors and liver metastases and, to a lesser extent, in metastatic lymph nodes. Next, we examined the activity of IR1 agonists - rilmenidine, clonidine and moxonidine - in a panel of metastatic melanoma cell lines (HTB140, FemX-1, A375 and 518a2) and found that rilmenidine most potently inhibited cell viability. Notably, it was not toxic towards human dermal fibroblasts and keratinocytes. Furthermore, rilmenidine time- and dose- dependently induced cell cycle arrest in G2/M phase and consequent apoptosis. Our results imply that imidazoline I1 receptor is potentially novel anti-melanoma target, and that its already clinically approved agents have promising anti-cancer activity.