



Sezione di Chimica Biologica



Annual Conference

### **Scientific Committee**

Michele Caraglia\*, Second University of Naples Massimo Donadelli, University of Verona Sonia Emanuele\*. University of Palermo Carlo Leonetti\*, Regina Elena Cancer Institute, Rome Enrico Lucarelli, Rizzoli Orthopedic Institute, Bologna Stefania Meschini\*, National Health Institute, Rome Marta Palmieri, University of Verona Augusto Pessina\*, University of Milan Aldo Scarpa, University of Verona Katia Scotlandi\*, Rizzoli Orthopedic Institute, Bologna Rosanna Supino\*, National Cancer Institute, Milan Francesca Zazzeroni\*, University of L'Aquila

### Scientific Secretariat



Giulia Biondani, University of Verona (giulia.biondani@univr.it) Elisa Dalla Pozza, University of Verona (elisa.dallapozza@univr.it) Ilaria Dando, University of Verona (ilaria.dando@univr.it) Massimo Donadelli, University of Verona (massimo.donadelli@univr.it) Claudia Fiorini, University of Verona (claudia.fiorini@univr.it)

Tel.: +39 045 8027174: +39 045 8027281: +39 045 8027179

Fax: +39 045 8027170

For additional information visit website: www.onlus-aicc.org

## Organizing Secretariat



COGEST M. & C. Srl

Vicolo San Silvestro. 6 37122 VFRONA

Tel. +39 045 597940 - Fax +39 045 597265 E-mail: cogest@tin.it - www.cogest.info

<sup>\*</sup>AICC Executive Board

### Presentation of the Conference

he Conference aims to present and discuss new findings emerged from the study of the mechanisms responsible for cell proliferation, programmed cell death, and autophagy with particular attention paid to the involvement of reactive oxygen species and of microRNAs. This knowledge is a basic precondition for directing research in oncology towards new possible targets for molecular identification of possible novel therapeutic approaches for the treatment of cancer. The Conference is divided into four sessions. The first is centered on the mechanisms of programmed cell death and on autophagy. As well as classical apoptosis, which for several years has been studied in the field of oncology, different types of cell death such as autophagy, recently linked to the regulation of tumor proliferation, can be activated in an attempt to selectively target cancer cells. This session aims to highlight how particular compounds can activate alternative pathways of cell death and how they acquire significance when tumor cells manifest phenomena of classical apoptosis resistance. The second session covers the production of reactive oxygen species and the control of cellular oxidative stress in tumors. It is well known that many chemotherapeutic agents of clinical use are able to stimulate cellular production of reactive oxygen species. This session considers the pros and cons of this phenomenon by discussing the latest scientific findings concerning the relationship between reactive oxygen species and inflammatory processes, resistance to chemotherapy and toxicity. The third session is focused on the role of microRNAs in the control of gene expression and in the pathogenesis of neoplastic diseases. In recent years the study of the alteration of the expression of microRNAs and their role in tumor development have been gradually increasing. The control of gene expression resulting from microRNAs is now an essential field of study and of scientific experimentation aimed at opportunely guiding the identification of new therapeutic targets and of new and specific cancer biomarkers. Finally, the fourth session is dedicated to one of the most topical and debated issue in the field of cancer research; cancer stem cells and personalized targeted-therapy of tumors. Since recent time is in fact known that a tumor mass can be composed of a large number of cells capable of proliferating only in a limited way and of a small population of cells (cancer stem cells) capable of proliferating for a long time maintaining the tumor and manifesting resistance to conventional chemotherapy treatments. In the same session, the most innovative cancer therapies that lead to the development of new personalized therapies of tumors will be discussed. As part of this Conference, the Italian Group Mesenchymal Stem Cells (GISM) is organizing the International Satellite Symposium aimed to discuss and deepen the study of mesenchymal stem cells which, due to their ease of isolation, expansion, and functional versatility are having a great interest in many clinical applications. In particular, GISM symposium is addressed to discuss the possible therapeutic use of mesenchymal stem cells in cardiovascular and neurologic diseases and to deeply discuss novel techniques for cellular reprogramming. AICC hopes that this Conference will provide an opportunity for interactions between Italian researchers, but also foreigners, allowing possible collaborations and insights in the field of molecular oncology and of mesenchymal stem cell applications.

# November 12<sup>th</sup>, 2014 (Wednesday)

- 14.00 Registration and Poster positioning
- 14.30 Greetings of Authorities
- 15.00 **OPENING LECTURE**

InterNET (Neutrophil Extracellular Trap) death connects autoimmunity and cancer

Mario Colombo, Milano

Anna Grimaldi, Napoli

15.45 Coffee Break

### **SESSION 1**

Autophagy and apoptosis in cell survival control Chairpersons: Massimo Donadelli, Verona - Stefania Meschini, Roma

- 16.15 Pharmacological interaction of everolimus and chloroquine in the modulation of autophagy/apoptosis in endothelial progenitor cells
- 16.35 Dissecting the role of Mitofilin and OPA1 in the cristae remodelling event and apoptosis

  Maria Eugenia Soriano, Padova
- 16.55 Synergistic effect of the HDAC inhibitor SAHA and the sesquiterpene lactone parthenolide in triple negative breast cancer cells

  Antonella D'Anneo, Palermo
- 17.15 Free communications (4)
- 17.55 General discussion
- 18.05 Meeting AICC Members



### November 13th, 2014 (Thursday)

Reactive oxygen species: friend or foe?

Chairpersons: Sonia Emanuele, Palermo - Marta Palmieri, Verona

- 9.00 Stress tumorigenesis and angiogenesis: our experience Antonio Barbieri, Napoli
- 9.20 Homocysteine, H2S and endothelial dysfunction: role of inflammation and metalloproteases

  Diego Ingrosso, Napoli
- 9.40 ROS as cospirators for cancer malignancy: implication for cell motility, stemness and metabolic deregulation

  Paola Chiarugi. Firenze
- 10.00 Free communications (2)
- 10.20 General Discussion
- 10.30 Coffee Break

### **SESSION 3**

Role of microRNAs in cell proliferation and survival

Chairpersons: Paola Chiarugi, Firenze - Francesca Zazzeroni, L'Aquila

- 10.50 miRNA therapeutics a new frontier for the experimental treatment of multiple myeloma

  Pierfrancesco Tassone. Catanzaro
- 11.10 Gain-of-function activities of natural mutants of p53 in human cancers: role in gene and microRNA transcriptional deregulation
- Silvia Di Agostino, Roma

  11.30 Role of miR34a as indicator of prognosis in sarcomas
- 11.50 Free communications (3)
- 12.20 General Discussion
- 12.30 AICC 2014 Awards Ceremony

Katia Scotlandi, Bologna

13.30 Lunch and Poster session

### November 13th, 2014 (Thursday)

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Cancer stem cells and targeted-therapy	
Chairpersons: Michele Caraglia, Napoli - Aldo Scarpa,	Verona

- 15.00 **Next generation histopathology and cancer stem cells** *Aldo Scarpa, Verona*
- 15.20 **Cancer integromics: a physician opinion** *Pierosandro Tagliaferri, Catanzaro*
- 15.40 **G-quadruplex DNA structure as target for antitumoral therapy** Pasquale Zizza, Roma
- 16.00 The evolving concept of cancer stem cells, a tangled topic in the molecular biology and clinic of cancer Roberto Scatena, Roma
- 16.20 Free communications (2)
- 16.40 General Discussion
- 16.50 Coffee Break
- 17.10 MAIN LECTURE

**Evolution of target therapy and personalized cancer therapy** *Giampaolo Tortora, Verona* 

- 17.30 Intervention of a pharmaceutical company (non CME certified)
- 17.50 Presentation of the 5th International Satellite Symposium AICC-GISM

### November 14th, 2014 (Friday)

## 5<sup>th</sup> International Satellite Symposium AICC-GISM ADVANCES IN MESENCHYMAL STEM CELL RESEARCH

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**Mesenchymal Stromal Cells: from biology to standardisation** *Mauro Krampera, Verona* 

### **SESSION 1**

### Cardiovascular diseases

Chairpersons: Giulio Alessandri, Maria Luisa Torre

- 9.30 Mesenchymal Stem Cells: paracrine mechanisms in heart repair Massimiliano Gnecchi. Pavia
- 9.50 Mechanisms of Cardiac Stem Cell senescence in heart failure
  Antonio Beltrami. Udine
- 10.10 Bone marrow-derived mesenchymal Stem Cells reduce arteriotomy-induced stenosis in rat carotids
  Umberto Galderisi, Napoli
- 10.30 General Discussion
- 10.40 Free communications (2)
- 11.00 Coffee Break

### **SESSION 2**

### Neurological diseases

Chairpersons: Maura Ferrari, Enrico Lucarelli

- 11.20 Mesenchymal Stem Cells and Parkinsonism Gianni Pezzoli. Milano
- 11.40 Mesenchymal Stem Cells nanovesicles: innovative therapeutic approach for neuroprotection and neuroregeneration Bruno Bonetti, Verona
- 12.00 Mesenchymal Stem Cells in amyotrophic lateral sclerosis Franca Fagioli, Torino
- 12.20 General Discussion
- 12.30 Free communications (3)
- 13.00 *Lunch*

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### 14.00 GUEST LECTURE

Identification of novel molecules controlling differentiation of human skeletal (stromal, mesenchymal) Stem Cells to osteoblasts Kassem Moustapha, Odense, Denmark

#### **SESSION 3**

### Mesenchymal Stromal Cells reprogramming Chairpersons: Laura De Girolamo, Augusto Pessina

- 14.30 Generating disease-specific induced pluripotent Stem Cells (iPSCs) in a Biobank facility for genetic disease modelling

  Domenico Coviello. Genova
- 14.50 A chemical approach to cell reprogramming Luigi Anastasia, Milano
- 15.10 Induced pluripotent stem cell for studying development and diseases Nicola Elvassore, Padova
- 15.30 Free communications (2)
- 15.50 General Discussion
- 16.00 POSTER AWARDS
- 16.20 Closing remarks





#### **ORGANIZING SECRETARIAT**

COGEST M. & C. Srl

Vicolo San Silvestro, 6 37122 VERONA

Tel. +39 045 597940 - Fax +39 045 597265 E-mail: cogest@tin.it - <u>www.cogest.info</u>

#### **CONFERENCE & SYMPOSIUM VENUE**

Both events will be held in **Centro Servizi - Banco Popolare di Verona**, with access from Viale delle Nazioni, 4 (South Verona).

#### **HOW TO REACH THE CONFERENCE & SYMPOSIUM VENUE**

By car

Motorways A4 (Milan-Venice) and A22 (Brennero-Modena): exit "Verona Sud" and take the underpass which leads to Viale delle Nazioni. After 100 meters turn left in Viale delle Nazioni n° 4. Parking area near the venue.

By train

From Verona Porta Nuova railway station the meeting venue is easily reachable by public bus n° 61 (ZAI direction), stop Viale delle Nazioni, 2. Please check the ATV timetable by visiting this link: http://www.atv.verona.it/flex/cm/pages/ServeBLOB.php/L/EN/IDPagina/607

Taxis are available outside the railway station. The fare to Viale delle Nazioni is about 8,00 Euro. Travel time approximately 5 minutes.

By Plane

Valerio Catullo Airport in Verona-Villafranca is conveniently located approximately 12 km far from the Conference and symposium venue (around 20 minutes away).

The airport is connected to Verona Porta Nuova railway station by a shuttle bus that leaves every 20 minutes; the station is situated 1,5 km far from Viale delle Nazioni and about 2 km from the city centre (<a href="https://www.aeroportoverona.it">www.aeroportoverona.it</a>).

### **REGISTRATION FEES (VAT INCLUDED)**

### Full fee: Early registration (extended till 7th October 2014)

AICC, GIC and SCR Italy Member € 122,95+22% V.A.T. = € 150,00

### Full fee: Late registration (from 8th October 2014)

AICC, GIC and SCR Italy Member € 163,94+22% V.A.T. = € 200,00

Non-Member  $€ 204,92+22\% \text{ V.A.T.} = € 250,00 \text{ } (€ 200,00 + € 50,00 \text{ } mandatory \text{ } membership \text{ } fee)}$ PhD Student  $€ 139,35+22\% \text{ V.A.T.} = € 170,00 \text{ } (€ 120,00 + € 50,00 \text{ } mandatory \text{ } membership \text{ } fee)}$ Student € 65,57+22% V.A.T. = € 80,00

The registration fee includes the following:

attendance at the 27<sup>th</sup> Annual Conference of Italian Association of Cell Cultures (ONLUS-AICC) and at the 5<sup>th</sup> International Satellite Symposium AICC-GISM, conference kit, coffee breaks, lunches, CME credits for the assignees.



### "One day" fee for the International Symposium (Friday 14th November 2014) Early registration (until 30th September 2014)

AICC, GIC and SCR Italy Member € 40,98+22% V.A.T. = € 50,00

Non-Member  $\in 81,97+22\%$  V.A.T.  $= \in 100,00$  ( $\in 50,00+\in 50,00+\in 50,00$  mandatory membership fee)

### "One day" fee for the International Symposium (Friday 14th November 2014) Late registration (from 1st October 2014)

AICC, GIC and SCR Italy Member € 73,77+22% V.A.T. = € 90,00

Non-Member  $\leqslant 114,75+22\%$  V.A.T.  $= \leqslant 140,00 \leqslant 90,00+ \leqslant 50,00$  mandatory membership feel

The registration fee includes the following:

attendance at the  $5^{th}$  International Satellite Symposium AICC-GISM, conference kit, coffee breaks, lunches, CME credits for the assignees.

### **HOW TO REGISTER**

#### PAYMENT INFORMATION

You are kindly requested to fill in the attached registration form, to sign and send it by e-mail to **segreteria@cogest.info** or by fax 0039 045 597265. COGEST M. & C. will send you an official receipt for the payment and further organizing information.

#### Information for bank transfer

Bank transfer to be made to COGEST M. & C., IBAN IT49H0200811705000005233961, BIC SWIFT UNCRITM1M03, on UNICREDIT BANCA AGENCY Piazza Bra 26/e, Verona Italy, specifying the title of the event and the surname of the person you are making the payment for.

### Online payment

Following the instructions at: http://www.cogest.info/congressi/pagamento.php (Payment with VISA or MASTERCARD credit card only)

### Acknowledgement of registration

Registration will be acknowledged by written confirmation only after receipt of full payment. If you do not get confirmation of your registration, please contact **segreteria@cogest.info**.

### Cancellation and refunds

Cancellation of registration will be possible until  $25^{th}$  October 2014. Fees refunding, minus the administrative fees  $(40,00 \in)$ , will be processed after the events. However, transfer of registration to another person will be accepted.

#### **ABSTRACT**

### Deadline of Abstract submission extended till 7th October

**Abstract topics** (the abstract should include one or more of the following topics)

- Cancer cell proliferation, apoptosis, autophagy
- Regulation of reactive oxygen species
- MicroRNAs
- Cancer Stem Cells
- Cancer target therapy
- Mesenchymal Stem Cells

### **Abstract designation**

The Scientific Committee reserves the right to designate the abstract format (oral or poster). The final acceptance decision is the exclusive right of the Scientific Committee.

### Selection criteria

The Abstracts will be evaluated and scored by a panel of Referees (selected by the Scientific Committee) according to their novelty and significance.



#### **Abstract Submission Instructions**

Abstracts must adequately describe the objectives and results so that the quality, originality and completeness of the work can be evaluated. Each abstract must contain the following items:

OBJECTIVE: indicate primary purpose of study

MATERIALS AND METHODS: description of data sources, subjects, design measurements and data analysis

**RESULTS:** summary of results

CONCLUSION: statement of the study's conclusion and/or implication of the results

### **Format**

Font: Times New Roman, 12 point font size, single spaced

Word Limit: 300 words (this applied to the main body of the abstract only and excludes the

abstract titles and authors)

References should not be included in the abstract

Use of standard abbreviations is desirable

Language: English

### Information for filling out the Abstract form

Please fill out the form completely. To make the reviewing procedure fully anonymous, do not include references by any of the authors involved in the second sheet of the form. All fields are mandatory and must be filled out for a submission to be valid. The name of the first author on the abstract form is assumed to be the contact person for the abstract. Please make certain the first author's email is typed correctly so that reviewers can contact presenters for acceptance.

#### E-mail submission form

Complete the Abstract Submission form. Attach/upload the .doc or .docx copy of your abstract and send it to **segreteria@cogest.info** and to **massimo.donadelli@univr.it**. Please write in the subject line of your e-mail your SURNAME, followed by your NAME followed by a dash "-" and the word "Submission".

If you make more than one submission, please number them and e-mail them separately.

For example, the subject line of each of two submissions for Tom Smith would be:

Smith Tom-Submission1 Smith Tom-Submission2

If Tom Smith only had one submission the subject line of his email would be:

Smith Tom-Submission.

Attach the completed form to the email. Please name the attached submission form in the same manner as the subject line of your email (for example, the Word file name for submission form will be Smith Tom-Submission). Once the abstract is submitted, the first author will receive an email message confirming receipt of the Abstract. If such a receipt is not received within 24 hours, please contact **segreteria@cogest.info** 

At least one of the authors has to be registered.

#### TRAVEL GRANTS

During the Conference, AICC will assign 8 travel grants of € 700,00 each to the 8 best abstracts presented as posters. The researcher has to be the first author and has to be less than 35 years old at the time of the Conference. On all the awards in money it will be performed, by law, a tax deduction as income tax. The awards will be delivered during the Award Ceremony directly to the winners (delegation for collection is not allowed – the possible absence will cause disqualification from the contest). If you wish to take part in the contest, please fill in the appropriate box in the abstract form.



#### **POSTER AWARDS**

During the Conference 3 prizes of  $\le$  1.000,00 euro each will be assigned to the first author of the 3 best oral communications presented as a poster, which author must be younger than 35 years old at the Conference date.

### ECM - CME (CONTINUING MEDICAL EDUCATION) - Only for Italian participants PROVIDER: COGEST M. & C. - COD. 979

27th Annual Conference of Italian Association of Cell Cultures (ONLUS-AICC)

CME accreditation will be requested to AGENAS for a maximum of 200 participants among Medical Doctors (specialties: Oncology), Biologists, Pharmacists.

### 5<sup>th</sup> International Satellite Symposium AICC-GISM

CME accreditation will be requested to AGENAS for a maximum of 200 participants among Medical Doctors (specialties: Cardiology, Neurology and Oncology), Biologists, Pharmacists.

#### **OFFICIAL LANGUAGES**

27<sup>th</sup> Annual Conference of Italian Association of Cell Cultures (ONLUS-AICC): Italian 5<sup>th</sup> International Satellite Symposium AICC-GISM: English

#### **HOTEL RESERVATION**

In order to make hotel reservation, participants are kindly requested to contact the Organizing Secretariat COGEST M. & C. (e-mail: cogest(atin.it)

#### B&B

There is also a large variety of unique and homely B&B in Verona. Please see the Bed & Breakfast Association of Verona website www.veronabedandbreakfast.it

### **Endorsement**









### UNIVERSITÀ DEGLI STUDI DI VERONA Dipartimento Scienze della Vita e della Riproduzione Sezione di Chimica Biologica



www.onlus-aicc.org