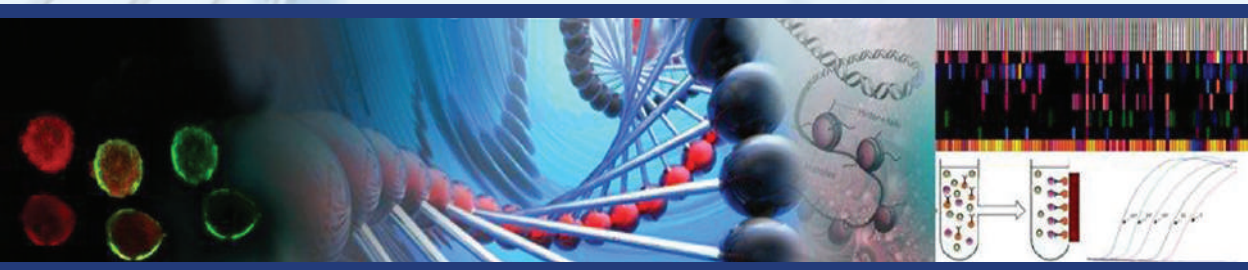
3rd International Symposium ACTC



Advances in Circulating Tumour Cells:
Liquid Biopsy in Clinical Practice

Rodos Palace International Convention Center

Rhodes, Greece

October 4th – 7th, 2017

Organizers

- *Evi Lianidou, University of Athens*
- *Klaus Pantel, University Medical Centre, Hamburg - Eppendorf, Hamburg, Germany*
- *Hellenic Society Of Tumor Biomarkers & Liquid Biopsy*

Under the Auspices of:

Εθνικό και Καποδιστριακό Πανεπιστήμιο Αθηνών
National and Kapodistrian University of Athens

ΕΟΠΕ Hellenic Society of Medical Oncology

EORTC European Organisation for Research and Treatment of Cancer
The future of cancer therapy

ifcc International Federation of Clinical Chemistry and Laboratory Medicine

CANCER ID

EFLM European Federation of Clinical Chemistry and Laboratory Medicine

www.actc2017.org

Dear Friends and Colleagues,

It is our great pleasure to welcome you to the 3rd ACTC "Liquid Biopsy in Clinical Practice" meeting in Rhodes.

The 3rd ACTC meeting is focused on "Liquid Biopsy in Clinical Practice" by bringing together researchers and clinicians to discuss practical implementation of CTCs and ctDNA and translate much of the excellent basic research in this field into clinical practice. The most prominent and established researchers in the field will present state of the art research on the technical advancements in the isolation, and detection of CTCs, ctDNA, miRNAs and exosomes as well as on the potential of Liquid Biopsy analysis in Clinical Practice. Latest findings on the clinical applications of liquid biopsy in prognosis and real time monitoring of systemic anticancer therapies will be discussed.

We aim to ensure that the ACTC meeting will be as interactive as possible and stimulate intense discussions between basic and clinical researchers, as well as Diagnostics and Pharma-industry companies that are active in this exciting field. Networking and knowledge sharing across basic researchers, clinicians and Diagnostics and Pharma-industry companies will be an important part of this event.

We do hope that during these days you will have the chance to enjoy stimulating discussions and a lot of thoughtful interactions that will lead to fruitful scientific collaborations in a relaxed and friendly atmosphere.

Welcome in Rhodes! Enjoy the meeting!

Warm regards,

Evi S. Lianidou
University of Athens, Greece

Klaus Pantel
University of Hamburg, Germany

INVITED SPEAKERS

Sofia Agelaki, MD, PhD, Ass. Professor, Medical School, University of Crete, Greece

Catherine Alix-Panabières, Laboratoire Cellules Circulantes Rares Humaines - LCCRH, Institut de Recherche en Biothérapie - IRB, Hôpital Saint-Eloi - CHRU Montpellier, France

Alberto Bardelli, PhD, Institute for Cancer Research and Treatment, Dept. of Oncology, University of Torino, Candiolo, Italy

Richard J. Cote, MD, FCRPath, FCAP, University of Miami Miller School of Medicine, USA

Massimo Cristofanilli, MD, FACP, Associate Director for Precision Medicine and Translational Research, Lurie Cancer Center, Northwestern University, Chicago, USA

Luis Diaz, Head, Division of Solid Tumor Oncology at Memorial Sloan Kettering Cancer Center NY, USA

Caroline Dive, PhD, Professor, Deputy Director Cancer Research UK Manchester Institute, Senior Group Leader Clinical & Experimental Pharmacology, The University of Manchester, UK

Françoise Farace, PhD, Gustave Roussy, Université Paris-Saclay, "Circulating Tumor Cells" Translational Platform, INSERM, Paris, France

Maurizio Ferrari, MD, President of the International Federation of Clinical Chemistry (IFCC), Professor of Clinical Pathology University Vita-Salute San Raffaele Director of Clinical Molecular Biology and Cytogenetics Laboratory, Head of Unit Genomics for Diagnosis of Human Pathologies, IRCCS San Raffaele – Milan, Italy

Dave Hoon, PhD, Director, Dept. of Molecular Oncology, John Wayne Cancer Institute, Santa Monica, CA, USA

Michail Ignatiadis, Ass. Professor, Jules Bordet Institute, Brussels, Belgium

Maarten IJzerman, Professor, Health Technology & Services Research, University of Twente, The Netherlands

Stefanie S. Jeffrey, Stanford University School of Medicine, Stanford, California, USA

Raghu Kalluri, MD, PhD, Dept. of Cancer Biology, Metastasis Research Center, University of Texas MD Anderson Cancer Center, Houston, TX, USA

Yibin Kang, PhD, Warner-Lambert / Parke-Davis Professor of Molecular Biology, Princeton University, Princeton, New Jersey, USA

Sabine Kasimir-Bauer, PhD, Professor, Head of Laboratory, Dept. of Gynecology and Obstetrics, University Hospital of Essen, Germany

Gary J. Kelloff, MD, Special Advisor, CIP, DCTD, National Cancer Institute, NIH, USA

Peter Kuhn, Professor, USC Dornsife, Los Angeles, CA, USA

Lauren Leiman, Senior Director, External Partnerships at White House Cancer Moonshot Task Force, USA

Evi Lianidou, Professor, ACTC lab, Dept. of Chemistry, University of Athens, Greece

Dennis Lo, Professor, Li Ka Shing Institute of Health Sciences, The Chinese University of Hong Kong, Shatin, New Territories, Hong Kong SAR, China

Mike Makrigiorgos, PhD, Professor and Director, Medical Physics and Biophysics, Dana-Farber Cancer Institute and Harvard Medical School, Boston, USA

Sunitha Nagrath, Associate Professor of Chemical Engineering, University of Michigan, Ann Arbor, USA

Bjørn Naume, Professor, Oslo University Hospital, Oslo, Norway

Klaus Pantel, Professor, Director, Institute of Tumour Biology, Centre of Experimental Medicine, University Medical Centre Hamburg Eppendorf, Hamburg, Germany

Jean-Yves Pierga, MD, PhD, Professor of Medical Oncology, at the Institute Curie and University Paris Descartes, Paris, France

Brigitte Rack, MD, PhD, Dept. of Obstetrics and Gynecology, University of Ulm, Germany

Thomas Schlange, PhD, Senior Biomarker Scientist, Global Biomarker Research, Bayer Pharma

Michael Speicher, MD, Professor and Chairman of the Institute of Human Genetics, Medical University of Graz, Austria

Leon Terstappen, Professor, Faculty of Science and Technology, MIRA Research Institute, Dept. of Medical Cell BioPhysics, University of Twente, Enschede, the Netherlands

Jean Paul Thiery, Professor, Research Director Comprehensive Cancer Center Institut Gustave Roussy, Villejuif, France

Danny R. Welch, Dept. of Cancer Biology and The University of Kansas Cancer Center, The University of Kansas Medical Center, Kansas City, USA

INTERNATIONAL SCIENTIFIC COMMITTEE

- **Catherine Alix-Panabières**, CHRU Montpellier, France
- **Alberto Bardelli**, University of Torino, Candiolo, Italy
- **Richard J. Cote**, University of Miami Miller School of Medicine, USA
- **Massimo Cristofanilli**, Robert H Lurie Comprehensive Cancer Center Feinberg School of Medicine, Chicago, IL, USA
- **Caroline Dive**, The University of Manchester, UK
- **Dave Hoon**, John Wayne Cancer Institute, Santa Monica, CA, USA
- **Michail Ignatiadis**, Jules Bordet Institute Brussels, Belgium
- **Stefanie S. Jeffrey**, Stanford University, School of Medicine, Stanford, USA
- **Sabine Kasimir-Bauer**, University Hospital of Essen, Germany
- **Peter Kuhn**, USC, Los Angeles, CA, USA
- **Evi Lianidou**, University of Athens, Greece
- **Klaus Pantel**, University Medical Centre Hamburg Eppendorf, Hamburg, Germany
- **Jean-Yves Pierga**, Institute Curie and University Paris Descartes, Paris, France
- **Michael Speicher**, Medical University of Graz, Austria
- **Leon Terstappen**, University of Twente, The Netherlands
- **Jean Paul Thiery**, Institut Gustave Roussy, Villejuif, France
- **Danny R. Welch**, University of Kansas Medical Center, USA

ACTC 2017 Program

DAY 1: Wednesday, October 4

07:30 – 08:30	**Registration**
08:45 – 09:00	**Welcome address** **Chairperson's Opening Remarks**
09:00 - 12:00	**Plenary Lecture Session 1:** **Recent Advances in the Biology of Metastasis**
	Chairing: Catherine Alix-Panabieres & Yibin Kang
09:00 – 09:30 **PL1-1**	**"Liquid Biopsy: Potential and Challenges"** **Klaus Pantel**, *Professor, Director, Institute of Tumour Biology, Centre of Experimental Medicine, University Medical Centre Hamburg Eppendorf, Hamburg, Germany*
09:30 – 10:00 **PL1-2**	**"Epithelial mesenchymal transition in carcinoma; therapeutic intervention"** **Jean Paul Thiery**, *Professor, Research Director Comprehensive Cancer Center Institute Gustave Roussy, Villejuif, France*
10:00 – 10:30 **PL1-3**	**"Contributions of Mitochondrial DNA to metastatic efficiency"** **Danny R. Welch**, *Dept. of Cancer Biology and The University of Kansas Cancer Center, The University of Kansas Medical Center, Kansas City, USA*
10:30 – 11:00	**Networking Coffee Break in the Exhibition Hall**
	Chairing: Jean Paul Thiery & Danny R. Welch
11:00 – 11:30 **PL1-4**	**"Models for Studying CTCs and Metastatic Biology"** **Stefanie S. Jeffrey**, *Stanford University School of Medicine, Stanford, California, USA*
11:30 – 12:00 **PL1-5**	**"Bone niches for the development and treatment resistance of skeletal metastasis"** **Yibin Kang**, *PhD, Warner-Lambert/Parke-Davis Professor of Molecular Biology, Princeton University, Princeton, New Jersey, USA*
12:00 – 13:30	**Lunch Break**
13:30 – 15:00	**POSTER SESSION 1 and Networking Coffee Break in the Exhibition Hall**
15:00 – 18:00	**Plenary Lecture Session 2:** **Liquid Biopsy in Breast Cancer: The clinician's point of view**
	Chairing: Massimo Cristofanilli & Jean-Yves Pierga
15:00 – 15:30 **PL2-1**	**"Characteristics of DTCs in breast cancer to understand clinical behavior"** **Bjørn Naume**, *Professor, Oslo University Hospital, Oslo, Norway*
15:30 – 16:00 **PL2-2**	**"CTCs and circulating miRNAs in breast cancer"** **Sofia Agelaki**, *MD, PhD, Ass. Professor, Medical School, University of Crete, Greece*

16:00 – 16:30 PL2-3	**"CTCs in the neo-adjuvant setting: is therapeutic monitoring in primary breast cancer possible after all?"** **Brigitte Rack**, *MD, PhD, Dept. of Obstetrics and Gynecology, University of Ulm, Germany*
16:30 – 17:00	**Networking Coffee Break in the Exhibition Hall**
17:00 – 17:30 PL2-4	**"The fluid revolution: The evolution of CTCs research"** **Massimo Cristofanilli**, *MD, FACP, Associate Director for Precision Medicine and Translational Research, Lurie Cancer Center, Northwestern University, Chicago, USA*
17:30 – 18:00 PL2-5	**"Clinical utility of CTC and ctDNA in metastatic and neoadjuvant setting of Breast Cancer"** **Jean-Yves Pierga**, *MD, PhD, Professor of Medical Oncology, at the Institute Curie and University Paris Descartes, Paris, France*
18:30 – 22:00	**Welcome Reception**

DAY 2: Thursday, October 5

08:30 – 12:00	**Plenary Lecture Session 3:** **Liquid Biopsy in Solid Cancers**
	Chairing: Caroline Dive & Peter Kuhn
08:30 – 09:00 PL3-1	**"What's next for lung cancer CTCs?"** **Caroline Dive**, *PhD, Professor, Deputy Director Cancer Research UK Manchester Institute, Senior Group Leader Clinical & Experimental Pharmacology, The University of Manchester, UK*
09.00 – 09.30 PL3-2	**"Molecular and functional characterization of CTCs in non-small cell lung cancer"** **Françoise Farace**, *PhD, Gustave Roussy, Université Paris-Saclay, "Circulating Tumor Cells" Translational Platform, INSERM, Paris, France*
09:30 – 10:00 PL3-3	**"Health Economic Implications of Liquid Biopsies"** **Maarten IJzerman**, *Professor, Health Technology & Services Research, University of Twente, The Netherlands*
10:00 – 10:30	**Networking Coffee Break in the Exhibition Hall**
	Chairing: Klaus Pantel & Stefanie Jeffrey
10:30 – 11:00 PL3-4	**"Analyses of circulating tumor DNA for monitoring tumor genome evolution"** **Michael Speicher**, *MD, Professor and Chairman of the Institute of Human Genetics, Medical University of Graz, Austria*
11:00 – 11:30 PL3-5	**"CTCs and ctDNA monitoring melanoma patients in early stage and advance stages during treatment."** **Dave Hoon**, *PhD, Director, Department of Molecular Oncology, John Wayne cancer Institute, Santa Monica, CA, USA*
11:30 – 12:00 PL3-6	**"The diversity of CTCs and DTCs in ovarian cancer-what is the role of the tumor microenvironment?"** **Sabine Kasimir-Bauer**, *PhD, Professor, Head of Laboratory, Dept. of Gynecology and Obstetrics, University Hospital of Essen, Germany*
12:00 – 13:30	**Lunch Break**
13:30 – 15:00	**POSTER SESSION 2 and Networking Coffee Break in the Exhibition Hall**
15:00 – 16:30	**ORAL PRESENTATIONS, Session 1**
	Chairing: Sofia Agelaki & Brigitte Rack

O1-1

CIRCULATING TUMOUR CELLS: THE TUMOUR TRAIL LEFT IN THE BLOOD

A. Kulasinghe[1], C. Perry[2], L. Kenny[3], T. Blick[1], M. Warkiani[4], I. Vela[5], K. O'Byrne[6], J. P Thiery[7], E. Thompson[1], C. Nelson[5], C. Punyadeera[1]

*[1]The School of Biomedical Sciences, Institute of Health and Biomedical Innovation, Queensland University of Technology, Kelvin Grove, QLD, Australia, [2]Department of Otolaryngology, Princess Alexandra Hospital, Brisbane, QLD, Australia, [3]School of Medicine, University of Queensland, Royal Brisbane and Women's Hospital, Brisbane, Central Integrated Regional Cancer Services, Queensland Health, QLD, Australia, [4]School of Mechanical and Manufacturing Engineering, Australian Centre for NanoMedicine,University of New South Wales, Sydney, Australia, [5]Australian Prostate Cancer Research Centre Queensland / Queensland University of Technology, Translational Research Institute, Brisbane, QLD, Australia, [6]Translational Cell Imaging Queensland, Institute of Health and Biomedical Innovation, Queensland University of Technology, Translational Research Institute, Brisbane, Australia, [7]Institute of Molecular and Cell Biology, A*STAR (Agency for Science, Technology and Research), Singapore*

O1-2

DETECTION OF ESR1 MUTATIONS IN THE PERIPHERAL CIRCULATION OF PATIENTS RECEIVING Z-ENDOXIFEN FOR HORMONE REFRACTORY METASTATIC BREAST CANCER

M.C. Liu[1,5], K. Haselkorn[2], J. Wu[2], V.J. Suman[3], M. Kuffel[4], B.R. Kipp[5], W.E. Highsmith, Jr.[5], JN. Ingle[1], M.P. Goetz[1,4]

[1]Department of Oncology; Mayo Clinic, Rochester, MN, USA, [2]Molecular Genome Facility; Mayo Clinic, Rochester, MN, USA, [3]Department of Health Sciences Research; Mayo Clinic, Rochester, MN, USA, [4]Department of Molecular Pharmacology & Experimental Therapeutics; Rochester, MN, USA, [5]Department of Laboratory Medicine and Pathology; Mayo Clinic, Rochester MN, USA

O1-3

TOWARDS LIQUID PROFILING OF MELANOMA – SUITABILITY FOR FIRST-LINE ASSESSMENT OF TUMOR MUTATIONAL STATUS AND TO MONITOR TARGETED THERAPY

V. Haselmann[1], C. Gebhardt[2,3], I. Brechtel[1], A. Duda[1], A. Sucker[4], T. Holland-Letz[5], J. Utikal[2,3], D. Schadendorf[4], M. Neumaier[1]

[1]Department of Clinical Chemistry, University of Mannheim Hospital, Mannheim, Germany, [2]German Cancer Research Center (DKFZ), Skin Cancer Unit, Heidelberg, Germany, [3]Department of Dermatology, Venereology and Allergology, University of Mannheim Hospital, Mannheim, Germany, [4]Department of Dermatology, University of Essen Hospital, Essen, Germany, [5]German Cancer Research Center (DKFZ), Department of Biostatistics, Heidelberg, Germany

O1-4

CIRCULATING TUMOR CELLS, TUMOR DERIVED EXTRACELLULAR VESICLES AND PLASMA CYTOKERATINS IN CASTRATION-RESISTANT PROSTATE CANCER PATIENTS

A. Nanou[1], G. van Dalum[2], L. Zeune[1], F. AW Coumans[3], W. Onstenk[4], M. Crespo[5], M.S. Fontes[5], P. Rescigno[5], G. Fowler[5], P. Flohr[5], C. Brune[6], S. Sleijfer[4], J. de Bono[5], L. WMM Terstappen[1]

[1]Department of Medical Cell BioPhysics, MIRA Institute, University of Twente, Enschede, the Netherlands, [2]Department of General, Visceral and Pediatric Surgery, University Hospital and Medical Faculty of the Heinrich-Heine University, Düsseldorf, Germany, [3]Department of Biomedical Engineering and Physics, Academic Medical Center, University of Amsterdam, The Netherlands, [4]Department of Medical Oncology, Erasmus MC – Cancer Institute, Rotterdam, The Netherlands, [5]Institute of Cancer Research, Royal Marsden Hospital, London, United Kingdom, [6]Department of Applied Mathematics, MIRA Institute and Faculty of EEMCS, University of Twente, Enschede, the Netherlands

O1-5

PD-L1 AND PD-1 EXPRESSION IN CIRCULATING TUMOR CELLS (CTCs) ISOLATED FROM CHEMOTHERAPY NAÏVE AND ADVANCED NON-SMALL CELL LUNG CANCER (NSCLC) PATIENTS

G. Kallergi[1,2], D. Agouraki[3], E.K. Vetsika[3], E. Lagoudaki[4], A. Koutsopoulos[4], F. Koinis[3] , P. Katsarlinos[2], A. Voumvouraki, M. Trypaki[3], C. Stournaras[2], V. Georgoulias[1], A. Kotsakis[3]

[1]Laboratory of Tumor Cell Biology, School of Medicine, University of Crete, Heraklion, Greece, [2]Department of Biochemistry, University of Crete Medical School, Heraklion, Crerter, Greece, [3]Laboratory of Translational Oncology, School of Medicine, University of Crete, Heraklion Greece, [4]Department of Medical Oncology, University General Hospital of Heraklion, Crete, Greece, [5]Department of Pathology, University General Hospital of Heraklion, Crete, Greece

O1-6

GENOMIC PROFILING OF CIRCULATING TUMOR CELLS IN PATIENTS WITH ERBB2 MUTANT, HER2 NON-AMPLIFIED METASTATIC BREAST CANCER TREATED WITH NERATINIB

S.N. Shishido[1], R. Masson[1], L. Welter[1], A. D'Souza[2], D. Spicer[2], Y. Jiang[3], L. Eli[3], R. Cutler[3], J. Lu[2], J. Hicks[1], P. Kuhn[1]

[1]The Bridge Institute, University of Southern California, Dornsife College of Letters, Arts and Sciences, 3430 S. Vermont Ave., TRF 125, Los Angeles, CA 90089, USA, [2]USC Norris Comprehensive Cancer Center, University of Southern California, Keck School of Medicine, 1441 Eastlake Ave., Los Angeles, CA 90033, USA, [3]Puma Biotechnology, Inc. 10880 Wilshire Blvd. Suite 2150, Los Angeles, CA 90024, USA

O1-7

EXPLORING METASTATIC BREAST CANCER CTC DIVERSITY AND THERAPY RESPONSE BY SINGLE CELL ANALYSES

L.M. Becker[1,2], S.F. Haas[1,2], L. Velten[3], C.S. Tu[3], J. Panten[1], R. Würth[1,2], M. Saini[1], M. Becker[4], L. Michel[4], F. Marmé[4], L. Steinmetz[3], M. Sprick[1,2,*], A. Trumpp[1,2,5,*]

*[1]Heidelberg Institute for Stem Cell Technology and Experimental Medicine gGmbH, Heidelberg, Germany, [2]Division of Stem Cells and Cancer, German Cancer Research Center (DKFZ), Heidelberg, Germany, [3]European Molecular Biology Laboratory (EMBL), Genome Biology Unit, Heidelberg, Germany, [4]National Center for Tumor Diseases, University Hospital Heidelberg, Heidelberg, Germany, [5]German Cancer Consortium, Heidelberg, Germany, *These authors contributed equally to this work*

01-8 **EVALUATION OF GENETIC MUTATIONS IN PLASMA cfDNA AND EXOSOMAL dsDNA: AS POTENTIAL BIOMARKER TOOL IN PEDIATRIC AML**

E. Kontopoulou[1]*, F. Kunz[1]*, C. Walter[1], K. Reinhardt[1], S. Strachan[1], E.B. Borras[1], K. Welte[2], D. Reinhardt[1], N. von Neuhoff[1] and B.K. Thakur[1#]

*[1]Department of Pediatric Hematology and Oncology, University Childrens Hospital of Essen, Essen, Germany, [2]Department of Pediatric Hematology, Oncology and Bone Marrow Transplantation, University Children's Hospital Tuebingen, Tuebingen, Germany, *Equal contribution, #Presenting author*

01-9 **CTCs-DERIVED XENOGRAFT DEVELOPMENT FROM A TRIPLE NEGATIVE BREAST CANCER PATIENT**

T. Pereira-Veiga[1], D. Robledo[2], M. Abreu[3], C. Abuin[1], L.S. Piñón[4], X. Matias-Guiu[5,6], M. Santacana[5], R. López-López[1,6,7], L. Muinelo-Romay[3,6]*, C. Costa[1,6]*

[1]Roche-Chus Joint Unit. University Hospital of Santiago. Travesía da Choupana s/n 15706 Santiago de Compostela, Spain, [2]The Roslin Institute and Royal (Dick) School of Veterinary Studies, The University of Edinburgh, Midlothian, EH25 9RG (UK), [3]Liquid Biopsy Analysis Unit, Oncomet, Health Research Institute of Santiago (IDIS), Complexo Hospitalario Universitario de Santiago de Compostela (SERGAS); Trav. Choupana s/n, Santiago de Compostela 15706 (Spain.), [4]Department of zoology, genetics and physic antrophology. University of Santiago de Compostela (Spain), [5]Department of Pathology and Molecular Genetics/Oncologic Pathology Group, Arnau de Vilanova University Hospital, University of Lleida, CIBERONC, IRBLleida, Lleida, (Spain), [6]CIBERONC, Centro de Investigación Biomédica en Red Cáncer, Madrid (Spain), [7]Health Research Institute of Santiago, University Hospital of Santiago. Trav. Choupana s/n, Santiago de Compostela 15706 (Spain)

16:30 – 17:30	**CTC Companies Sponsored Oral Presentations: "Novel Technologies in Liquid Biopsy"** **Chairing: Evi Lianidou & Michael Speicher**
16:30 – 17:00 **Agena** **Gold Sponsor**	**"Oncology Applications in Liquid Biopsy – An Emerging Era of Translational Research"** **Darryl Irwin**, *PhD, Senior Director, Applications Development, Agena Bioscience, Inc.*
17:00 – 17:15 **Thermo Fisher** **Silver Sponsor**	**"Advancing Liquid Biopsy with Next Generation Sequencing"** **Kelli Bramlett**, *Director, R&D - Clinical Next Generation Sequencing Division, Thermo Fisher Scientific*
17:15– 17:30 **Biorad** **Silver Sponsor**	**"Droplet Digital PCR and Liquid Biopsy, rising threshold for research and clinical monitoring"** **Nazha Bouhafid**, *PhD, Bio-Rad Laboratories*
19.00 – 22.00	**Faculty Dinner**

DAY 3: Friday, October 6

08:30 – 12:00	**Plenary Lecture Session 4: Recent Advances on the Isolation, Enumeration and Molecular Characterization of CTCs** **Chairing: Françoise Farace & Peter Kuhn**
08:30 – 09:00 **PL4-1**	**"Recent Advances in the Isolation and Molecular Characterization of Circulating Tumor Cells"** **Leon Terstappen**, *Professor, Faculty of Science and Technology, MIRA Research Institute, Department of Medical Cell BioPhysics, University of Twente, Enschede, the Netherlands*
09:00 – 09:30 **PL4-2**	**"Capture, Interrogation and Culture of Viable CTC: Strategies for the Development of a Transformative Tool to Understand Cancer"** **Richard J. Cote**, *MD, FCRPath, FCAP, University of Miami Miller School of Medicine, USA*
09:30 – 10:00 **PL4-3**	**"In vitro expansion of colon Circulating Tumor Cells: Molecular portrait of metastasis-competetent CTCs"** **Catherine Alix-Panabières**, *Laboratoire Cellules Circulantes Rares Humaines - LCCRH, Institut de Recherche en Biothérapie - IRB , Hôpital Saint-Eloi - CHRU Montpellier, France*
10:00 – 10:30	**Networking Coffee Break in the Exhibition Hall**
	Chairing: Richard Cote & Sabine Kasimir-Bauer
10:30 – 11:00 **PL4-4**	**"Molecular Analysis of Circulating Tumor Cells and Clinical Applications"** **Sunitha Nagrath**, *Associate Professor of Chemical Engineering, University of Michigan, Ann Arbor, USA*
11:00 – 11:30 **PL4-5**	**"No-Cell-Left-Behind: tracing the temporal evolution in cancer"** **Peter Kuhn**, *Professor, USC Dornsife, Los Angeles, CA, USA*
11:30 – 12:00 **PL4-6**	**"Development and clinical evaluation of multiplex molecular assays for CTC molecular characterization"** **Evi Lianidou**, *Professor, ACTC lab, Dept. of Chemistry, University of Athens, Greece*
12:00 – 13:30	**Lunch Break**
13:30 – 15:00	**POSTER SESSION 3 and Networking Coffee Break in the Exhibition Hall**
15:00 – 16:30	**ORAL PRESENTATIONS, Session 2**
	Chairing: Dimitris Mavroudis & Bjørn Naume

02-1 **THE GENETIC HETEROGENEITY AND THE MOLECULAR EVOLUTION OF SYSTEMIC METASTATIC CASTRATION RESISTANT PROSTATE CANCER DURING THERAPY**

R. P.L. Neves[1], A. L.R.F. Streit[1], K. Raba[2], E.-K. Bongers[1], B. Behrens[1], P. Flohr[3], J. Mateo[3], S. Sumanasuriya[3], M. Crespo[3], B. Ebbs[3], G. Fowler[3], S. Carreira[3], M.B. Lambros[3], J. de Bono[3], N.H. Stoecklein[1]

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02-2 **MULTICENTER EVALUATION OF miRNA EXTRACTION TECHNOLOGIES FOR THE DEVELOPMENT OF A CLINICALLY-RELEVANT miRNA ANALYSIS WORKFLOW**

M. H.D. Neumann[1], F. Di Pasquale[2], M. Sprenger-Haussels[2], J. Shaffer[3], M. Schlumpberger[2], F. Betsou[4], W. Ammerlaan[4], T. af Hällström[5], E. Lianidou[6], R. Sjöback[7], S. Bender[1], T. Schlange[1] for the IMI CANCER-ID consortium

[1]Bayer AG, Wuppertal/Berlin, Germany, [2]Qiagen GmbH, Hilden, Germany, [3]Qiagen, Frederick, USA [4]Integrated BioBankof Luxembourg, Luxembourg, Luxembourg, [5]Orion Pharma, Espoo, Finland, [6]University of Athens, Athens, Greece, [7]TATAA Biocenter, Göteborg, Sweden

02-3 **INTERNATIONAL MULTI INSTITUTIONAL EVALUATION OF A HIGH SENSITIVE NGS ASSAY FOR LIQUID BIOPSY MUTATION DETECTION IN LUNG CANCER**

C. Vollbrecht[1,2,3], J.L. Costa[4], R. Weren[5], A.M. Rachiglio[6], A. Mafficini[7], H. Kurth[8], A. Reiman[9], D. Le Corre[10], A. Boag[11], K. Nishio[12], H.E. Feilotter[11], P. Laurent-Puig[10], O. Sheils[13], A. Scarpa[7], M. Ligtenberg[5], I.A. Cree[9], J.C. Machado[4], N. Normanno[14], M. Hummel[2,3]

[1]German Cancer Consortium (DKTK), partnersite Berlin; [2]Charité Universitaetsmedizin Berlin, Institute of Pathology, Berlin, Germany; [3]German Cancer Research Center (DKFZ), Heidelberg, Germany; [4]i3S/Ipatimup, Porto, Portugal; [5]Radboud University Medical Center, Nijmegen, Netherlands; [6]Centro di Ricerche Oncologiche di Mercogliano (CROM)-Instituto Nazionale Tumori "Fondazione G. Pascale"-IRCCS, Naples, Italy; [7]ARC-NET: Centre for Applied Research on Cancer, Verona, Italy; [8]Viollier AG, Basel, Switzerland; [9]University Hospitals Coventry and Warwickshire, United Kingdom; [10]University Paris Descartes, Paris France Assistance Publique-Hôpitaux de Paris, European Georges Pompidou Hospital, France; [11]Queens University, ON, Canada; [12]Kinki University Faculty of Medicine, Osaka, Japan; [13]Trinity Translational Medicine Institute, Dublin, Ireland; [14]Cell Biology and Biotherapy Unit, Instituto Nazionale Tumori "Fondanzione G. Pascale", Naples, Italy

02-4 **A NEW MICROARRAY APPROACH FOR ULTRA-SENSITIVE GENOTYPING OF KRAS GENE VARIANTS IN COLORECTAL CANCER**

M. Chiari[1]*, F. Damin[1], S. Galbiati[2], M. Ferrari[2]

[1]National Research Council of Italy, Institute of Chemistry of Molecular Recognition, Milan, Italy, [2]IRCCS San Raffaele Scientific Institute, Unit of Genomic for the Diagnosis of Human Pathologies, Division of Genetics and Cell Biology, Milan, Italy

02-5 **NANOPARTICLE BLOOD CIRCULATION SCAVENGERS FOR PROTEOMIC BIOMARKER DISCOVERY IN OVARIAN CARCINOMA PATIENTS**

M. Hadjidemetriou[1], K. Kostarelos[1]

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02-6 **COMPREHENSIVE COMPARISON AND STANDARDIZATION OF A LABEL INDEPENDENT CIRCULATING TUMOR CELL (CTC) ENRICHMENT PLATFORM**

C. Hille[1], S.A. Joosse[1], M. Janning[1,2], V. Müller[3], S.Loges[1,2], C. Coith[1], A. Andreas[1], S. Riethdorf[1], T.M. Gorges[1], K. Pantel[1]

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02-7 **CAN CTC CLUSTERS TRAVERSE CAPILLARIES?**

S.H. Au[1], B.D. Storey[2], J.C. Moore[3], Q. Tang[3], Y.-L. Chen[4], S. Javaid[3], A.F. Sarioglu[1], R.J. Sullivan[3], M.W. Madden[3], R. O'Keefe[3], D.A. Haber[3], S. Maheswaran[3], D.M. Langenau[3], S.L. Stott[1,3], M. Toner[1]

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02-8 **CIRCULATING TUMOUR CELLS USED TO INVESTIGATE TUMOUR MOLECULAR STATUS AND HETEROGENEITY IN SMALL CELL LUNG CANCER**

B. Mesquita[1], D.G. Rothwell[1], S. Gulati[1], F. Fernandez-Gutierrez[2], H.S. Leong[2], D.J. Burt[1], D. Slane-Tan[1], F. Chemi[1], M. Carter[1], L. Carter[1], S. Mohan[1], M. Ayub[1], L. Priest[1], C. Miller[2], F. Blackhall[3], C. Dive[1], G. Brady[1]

[1]Nucleic Acid Biomarker Laboratory, Clinical and Experimental Pharmacology, Cancer Research UK Manchester Institute, Manchester, UK, [2]RNA Biology Group/ Computational Biology, Cancer Research UK Manchester Institute, Manchester, UK, [3]Christie NHS Foundation Trust, Manchester, UK

16:30 – 18:00 **CTC Companies Sponsored Oral Presentations:**
"Novel Technologies in Liquid Biopsy"
Chairing: Leon Terstappen & Caroline Dive

16:30 – 17:00
Angle Gold Sponsor
"Rapid analysis of drug responses in live patient CTCs using microfluidic cell tethering"
Stuart S. Martin, *Professor, Marlene and Stewart Greenebaum NCI Comprehensive Cancer Center, University of Maryland School of Medicine, USA*

17:00 – 17:30
Menarini Silicon Gold Sponsor
"Achieving Unparalleled Precision with Cell-Based Liquid Biopsy Workflows"
Nicolo Manaresi, *PhD, Chief Scientific Officer, Menarini Silicon Biosystems*

17:30 – 17:40 **Qiagen** **Silver sponsor**	**"Tools for CTC Research in Prostate Cancer: The AdnaPanel Prostate *AR-V7*"** **Siegfried Hauch**, *PhD, Director CTC Research and Development, Qiagen*
17:40 – 17.50 **Vortex** **Silver sponsor**	**"Isolating Clinically Relevant CTC Samples with the VTX-1 Liquid Biopsy System"** **Elodie Sollier**, *Chief Scientific Officer, Co-Founder, Vortex Biosciences*
17:50 – 18:00 **Clearbridge** **Silver Sponsor**	**"Clinical usefulness of CTC enumeration, EBV DNA, and PET imaging for metastatic Nasopharyngeal carcinoma"** **Maria Lung**, *Professor, The University of Hong Kong, Hong Kong, China*
20.00	**Gala Dinner Party**

DAY 4: Saturday, October 7

08:30 – 12:30	**Plenary Lecture Session 5: Circulating tumor DNA and exosomes in clinical practice**
	Chairing: Alberto Bardelli & Michail Ignatiadis
08:30 – 09:00 **PL5-1**	**"Regulatory Science Considerations for Utilizing Liquid Biopsies in Drug and Diagnostics Development: The Promise and Value of Public-Private Partnerships"** **Gary J. Kelloff**, *MD, Special Advisor, CIP, DCTD, National Cancer Institute, NIH, USA*
09.00 – 09.30 **PL5-2**	**"Liquid biopsy for drug development in breast cancer"** **Michail Ignatiadis**, *Ass. Professor, Jules Bordet Institute, Brussels, Belgium*
09:30 – 10:00 **PL5-3**	**"Strategies to Exploit the Biology of Exosomes for Diagnosis and Treatment of Cancer"** **Raghu Kalluri**, *MD, PhD, Department of Cancer Biology, Metastasis Research Center, University of Texas MD Anderson Cancer Center, Houston, TX, USA*
10:00 – 10:30 **PL5-4**	**"Novel approaches in identifying and sequencing traces of tumor and tissue-specific nucleic acids in liquid biopsies"** **Mike Makrigiorgos**, *PhD, Professor and Director, Medical Physics and Biophysics, Dana-Farber Cancer Institute and Harvard Medical School, Boston, USA*
10:30 – 11:00	**Networking Coffee Break in the Exhibition Hall**
	Chairing: Evi Lianidou & Dave Hoon
11:00 – 11:30 **PL5-5**	**"Towards the use of plasma DNA for cancer screening"** **Dennis Lo**, *Professor, Li Ka Shing Institute of Health Sciences, The Chinese University of Hong Kong, Shatin, New Territories, Hong Kong SAR, China*
11:30 – 12:00 **PL5-6**	**"Liquid biopsies and cancer evolution"** **Alberto Bardelli**, *PhD, Institute for Cancer Research and Treatment, Department of Oncology, University of Torino, Candiolo, Italy*
12:00 – 12:30 **PL5-7**	**"Novel clinical applications of cancer genetics for therapy and diagnosis"** **Luis Diaz**, *Head, Division of Solid Tumor Oncology at Memorial Sloan Kettering Cancer Center, NY, USA*
12:30 – 13:30	**Lunch Break**
13:30 – 14:00	**TRAVEL AWARDS ORAL PRESENTATIONS**
	Chairing: Evi Lianidou

03-1 **RNA PROFILES OF CIRCULATING TUMOR CELLS AND EXTRACELLULAR VESICLES FOR THERAPY STRATIFICATION OF METASTATIC BREAST CANCER PATIENTS**

C. Keup[1], S. Hauch[2], M. Sprenger-Haussels[2], P. Mach[1], M. Tewes[3], B. Aktas[1], H.-C. Kolberg[4], R. Kimmig[1], S. Kasimir-Bauer[1]

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03-2 **TUMOR-INITIATING CELL CHARACTERISTICS OF NON-SMALL CELL LUNG CANCER (NSCLC) CIRCULATING TUMOR CELLS (CTCs) INFERRED FROM CTC-DERIVED XENOGRAFTS (CDX)**

V. Faugeroux[1,2], O. Deas[3], C. Catelain[2], J. Michels[4], E. Pailler[1,2], P. Queffelec[1,2], A. Rozié[1,2], F. Lucibello[1,2], J.-G. Judde[3], S. Cairo[3], J.-Y. Scoazec[5], V. Marty[5], F. Billiot[2], M. NgoCamus[4], C. Nicotra[4], J.-C. Soria[4], L. Mezquita[4], D. Planchard[4], B. Besse[4], P. Kannouche[6], F. Farace[1,2]

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03-3 **miRNA EXPRESSION OF EXOSOMES IN BREAST CANCER DIAGNOSIS**

D. de Miguel-Pérez[1,2]*, A. Rodríguez-Martínez[1,2]*, M. Martínez-Ruiz[1], F.G. Ortega[1], J.L. García-Puche[1,3], I. Robles[1], J. Expósito[4], P. Carmona[1], J.A. Lorente[1,2], M.J. Serrano[1]

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14:00 – 16:00 **Plenary Lecture Session 6:**
Future Challenges in Liquid Biopsies
Presentations of Liquid Biopsy Consortia in Europe and US

Chairing: Klaus Pantel & Leon Terstappen

14:00 – 14:30
PL6-1 **Europe: "The Cancer – ID project: Cancer treatment and monitoring through identification of circulating tumour cells and tumour related nucleic acids in blood"**
Thomas Schlange, *PhD, Senior Biomarker Scientist, Global Biomarker Research, Bayer Pharma*

14:30 – 15:00
PL6-2 **USA: "Blood Profiling Atlas in Cancer (Blood PAC): Catalyzing Collaboration to Advance Cancer Care"**
Lauren Leiman, *Senior Director, External Partnerships at White House Cancer Moonshot Task Force, USA*

15:00 – 15:30
PL6-3 **"Liquid Biopsy: How close are we now to routine clinical practice?"**
Maurizio Ferrari, *MD, President of the International Federation of Clinical Chemistry (IFCC), Professor of Clinical Pathology University Vita-Salute San Raffaele Director of Clinical Molecular Biology and Cytogenetics Laboratory, Head of Unit Genomics for Diagnosis of Human Pathologies, IRCCS San Raffaele - Milan, Italy*

15:30 – 16:00 **Presentation of Travel Awards**
Presentation of Best Poster Awards
Closing Remarks
Evi Lianidou, Klaus Pantel

Program

Saturday, October 07, 2017

ACTC 2017 Posters

Wednesday October 4, 13:30–15:00, Session 1

P-1. MOLECULAR PORTRAIT OF METASTASIS-COMPETENT CIRCULATING TUMOR CELLS IN COLON CANCER REVEALS THE CRUCIAL ROLE OF GENES REGULATING ENERGY METABOLISM AND DNA REPAIR

C. Alix-Panabieres[1,2], L. Cayrefourcq[1,2], T. Mazard[3,4], T. Maudelonde[5,2], E. Assenat[6], S. Assou[7,8]

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P-2. CYTOKINE-BASED PREDICTIVE BIOMARKERS FOR PROSTATE CANCER RADIOSENSITIVITY

C. Peitzsch[1,2,3], M. Baumbach[1], H. Neubauer[7], F. Lohaus[5], A. Linge[3,5], M. Cojoc[1], L. Hein[1], I. Kurth[6], M. Baumann[1,2,3,4,5,6], M. Krause[1,2,3,4,5], A. Dubrovska[1,3,4]

[1]OncoRay - Center for Radiation Research in Oncology, Faculty of Medicine and University Hospital Carl Gustav Carus, Technische Universität Dresden, Germany, [2]National Center for Tumor Diseases (NCT), Dresden, Germany, [3]German Cancer Consortium (DKTK), Dresden, Germany, [4]Institute of Radiation Oncology, Helmholtz-Zentrum Dresden-Rossendorf, Dresden, Germany, [5]Department of Radiation Oncology, Faculty of Medicine and University Hospital Carl Gustav Carus, Technische Universität Dresden, Germany, [6]German Cancer Research Center (DKFZ), Heidelberg, Germany, [7]Department of Obstetrics and Gynecology, University Hospital and Medical Faculty, Heinrich-Heine University Duesseldorf, Germany

P-3. EVALUATION OF THE DETECTION OF TOLL-LIKE RECEPTORS IN CANCER DEVELOPMENT AND PROGRESSION IN PATIENTS WITH COLORECTAL CANCER

I. Messaritakis[1], M. Stogiannitsi[1], M. Sfakianaki[1], A. Koulouridi[2], A. Sotiriou[1], G. Evangelou[3], D. Mavroudis[1,3], J. Souglakos[1,3]

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P-4. FREQUENT EXPRESSION OF PD-L1 ON CIRCULATING BREAST CANCER CELLS

M. Mazel[1,2], W. Jacot[3], K. Pantel[4], K. Bartkowiak[4], D. Topart[5], L. Cayrefourcq[1,2], D. Rossille[6,7], T. Maudelonde[2,8], T. Fest[6,7], C. Alix-Panabieres[1,2],

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P-5. ENRICHMENT, ISOLATION AND PIK3CA MUTATIONAL ANALYSIS OF PATIENT-MATCHED EPCAM$^{LOW/NEGATIVE}$ AND EPCAM^{HIGH} CTCs IN METASTATIC BREAST CANCER

R. Lampignano[1], L. Yang[1], A. Franken[1], D. Köhler[1], T. Fehm[1], D. Niederacher[1], H. Neubauer[1]

[1]Department of Obstetrics and Gynecology, University Hospital and Medical Faculty of the Heinrich-Heine University, Duesseldorf, Germany

P-6. CIRCULATING TUMOR CELLS REVEAL THE GENETIC EVOLUTION OF METASTATIC BREAST CANCER

A. Babayan[1], K. Prieske[2], D. Indenbirken[3], M. Alawi[4], A. Grundhoff[3], V. Müller[2], K. Pantel[1], S.A. Joosse[1]

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P-7. SINGLE CELL PROFILING OF HNSCC SIDENTIFIES A GENE-SIGNATURE AT 8q24 WHICH IS CONNECTED TO PROMOTING METASTASIS

B. Behrens[1], R. Neves[1], K. Roensch[5], G. Flügen[1], M. Beier[4], C. Bartenhagen[6], S.E. Baldus[3], R.H. Brakenhoff[7], N.R. Kübler[2], W.T. Knoefel[1], J. Sleeman[5], K.C. Sproll[2]*, N.H. Stoecklein[1]*

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P-8. SINGLE CELL SEQUENCING REVEALS TUMOR HETEROGENEITY AND CLONALITY IN A CASE OF TREATMENT-NAÏVE DE NOVO POLYMETASTATIC PROSTATE CANCER

P.D. Malihi[1], M. Morikado[1], L. Welter[1], S.T. Liu[2], E.T. Miller[2], R.M. Cadaneanu[2], B.S. Knudsen[2], M. Lewis[2], A. Carlson[1], C.R. Velasco[1], A. Kolatkar[1], M.R. Lee[1], I. Garraway[2], J. Hicks[1], P. Kuhn[1]

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P-9. EVALUATION OF MICROTENTACLES ON CIRCULATING TUMOR CELLS (CTCs); INTERACTION BETWEEN CTCs AND BLOOD CELLS THROUGH CYTOSKELETAL PROTEINS

G. Kallergi[1,2], S.S. Martin[3], D. Aggouraki[1], C. Stournaras[2], V. Georgoulias[1]

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P-10. OVEREXPRESSION OF TRANSFERRIN RECEPTOR 1 (TFR) IN CTCs IS A POOR PROGNOSTIC FACTOR FOR BREAST CANCER PATIENTS

G. Kallergi[1,2], G. Galetti[3],T.E. McGraw[3], D.-M. Tsiridou[2], C. Stournaras[2], V. Georgoulias[1], N. Altorki[4], P. Giannakakou[3]

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P-11. THE ISOLATION OF TUMORIGENIC CANCER CELLS FROM BLOOD USING PORE MIGRATION AND TUMORSPHERE CULTURE

U.K. Veeramallu

VigilDX, LLC, San Diego, CA, U.S.A.

P-12. ESTABLISHMENT AND CHARACTERIZATION OF A CIRCULATING TUMOR CELL-DERIVED XENOGRAFT (CDX) IN PROSTATE CANCER

V. Faugeroux[1,2], O. Deas[3], C. Catelain[2], E. Pailler[1,2], K.C. Andree[4], F. Lucibello[1,2], K. Alexandrova[5], J.-G. Judde[3], N. Stoecklein[6], J.-Y. Scoazec[7], N. Manaresi[8], V. Marty[7], D. Tramalloni[5], M. NgoCamus[9], C. Nicotra[9], L. WMM Terstappen[4], V. Lapierre[5], K. Fizazi[1,9], Y. Loriot[9], F. Farace[1,2]

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P-13. MOLECULAR ANALYSIS OF THE MSC-FACILITATED DERIVATION OF NOVEL CTC VARIANT FROM THE TNBC CELL LINE

S. Miklikova[1], J. Plava[1], M. Matuskova[1], M. Mego[2], L. Kucerova[1]

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P-14. THE USE OF MESENCHYMAL STEM CELLS DERIVED FROM THE WHARTON'S JELLY AS A NOVEL APPROACH FOR CANCER TREATMENT

M. Goulielmaki, M. Devetzi, M. Adamaki, I. Christodoulou, V. Zoumpourlis

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P-15. INHIBITING EMT: THERAPEUTIC INTERVENTION IN BLADDER CARCINOMA

W. JingSim[1], A.H.Chun Ng[2], J.P. Thiery[2]

[1]Biomedical Institute for Global Health Research and Technology (BIGHEART), Singapore, Singapore, [2]Institute of Molecular and Cell Biology, Agency for Science, Technology and Research, Singapore, Singapore

P-16. PHENOTYPIC HETEROGENEITY OF DISSEMINATED TUMOR CELLS IS PRESET BY PRIMARY TUMOR HYPOXIC MICROENVIRONMENTS

G. Fluegen[1,2] & A. Avivar-Valderas[1], Y. Wang[3], M.R. Padgen[4], J.K. Williams[4], V.V. Verkhusha[3], D. Entenberg[3], K.W. Eliceiri[5], J. Castracane[4], P.J. Keely[5], J. Condeelis[3], J.A. Aguirre-Ghiso[1]

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P-17. ANALYSIS OF EPITHELIAL-MESENCHYMAL TRANSITION IN GYNECOLOGICAL CANCER PATIENTS' BLOOD

P. Białas[1], M. Kubiczak[1], A. Szczerba[1], K. Adamska[2,3], A. Jankowska[1]

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P-18. METHYLATION OF TRANSCRIBED-ULTRA CONSERVED REGIONS IN COLORECTAL CANCER AND THEIR DIAGNOSTIC VALUE

E. Kottorou[1], A.G. Antonacopoulou[1], F.-I.D. Dimitrakopoulos[1,3], M. Kalofonou[1,6], G. Diamantopoulou[2], T. Theodorakopoulos[2], C. Oikonomou[3], E.C. Katsakoulis[2], T. Makatsoris[1,3], N. Dimopoulos[4], G. Stephanou[4], M. Stavropoulos[5], K.C. Thomopoulos[2], H.P. Kalofonos[1,3]

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P-19 CHROMOSOMAL ABERRATIONS ASSOCIATED WITH SEQUENTIAL STEPS OF THE METASTATIC CASCADE IN COLORECTAL CANCER PATIENTS

S.A. Joosse[1], F.-R. Souche[2], A. Babayan[1], C. Gasch[1], R.M. Kerkhoven[3], J. Ramos[4], J.-M. Fabre[2], S. Riethdorf[1], A. König[5], H. Wikman[1], C. Alix-Panabières[6,7], K. Pantel[1]

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Thursday October 5, 13:30–15:00, Session 2

P-20. MUTATIONAL ANALYSIS OF BRCA1 AND BRCA2 IN CIRCULATING-FREE DNA IN ADVANCED STAGE EPITHELIAL OVARIAN CANCER: A PROOF-OF-PRINCIPLE STUDY

L. Paracchini[1], T. Grassi[2], R. Fruscio[2], L. Ceppi[2], V. Fotia[3], G. Siravegna[4], A. Bardelli[4], M. D'Incalci[1], S. Marchini[1]

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P-21. CORRELATION BETWEEN SINGLE TUMOR CELL SUBPOPULATIONS IN PRIMARY BREAST TUMORS AND TYPES OF CIRCULATING TUMOR CELLS

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P-22. CIRCULATING TUMOR CELLS AND CIRCULATING MEGAKARYOCYTES IN PROSTATE CANCER PROGNOSIS

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P-23. CLINICAL SIGNIFICANCE OF THE DETECTION PERIPHERAL-, TUMOR-DRAINING BLOOD AND BONE MARROW CEA AND CK20 MRNa POSITIVE CELLS DURING AND AFTER COLORECTAL CANCER SURGERY

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P-24. DYNAMIC CHANGES OF DLL3-POSITIVE CIRCULATING TUMOR CELLS FROM PATIENTS WITH SMALL CELL LUNG CANCER DURING FRONT-LINE TREATMENT

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P-25. PROGNOSTIC SIGNIFICANCE OF *CEACAM5m*RNA-POSITIVE CELLS DETECTION IN THE PERIPHERAL BLOOD OF PATIENTS WITH METASTATIC COLORECTAL CANCER

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P-26. DYNAMIC CHANGES OF PHENOTYPICALLY DIFFERENT CIRCULATING TUMOR CELLS SUB-POPULATIONS IN PATIENTS WITH RECURRENT/REFRACTORY SMALL CELL LUNG CANCER TREATED WITH PAZOPANIB

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P-27. DYNAMIC CHANGES OF BCL2-POSITIVE CIRCULATING TUMOR CELLS FROM PATIENTS WITH SMALL CELL LUNG CANCER DURING FRONT-LINE TREATMENT

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P-28. CLINICAL SIGNIFICANCE OF CIRCULATING/DISSEMINATED TUMOR CELLS PRESENCE IN PERIPHERAL, PULMONARY BLOOD AND BONE MARROW OF PATIENTS WITH NSCLC

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P29. THE INFLUENCE OF PRIMARY TUMOR REMOVAL ON INCIDENCE AND PHENOTYPE OF CIRCULATING TUMOR CELLS IN STAGE IV COLORECTAL CANCER

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P-30. ANALYSIS OF BLOOD MARKERS RELATED TO PROGNOSIS IN LOCALLY ADVANCED RECTAL CANCER

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P-31. EVALUATING THE CONSENSUS IN CIRCULATING TUMOR CELL SCORING

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P-32. VALIDATION OF CIRCULATING TUMOR CELLS (CTCs) AND CIRCULATING ENDOTHELIAL CELLS (CECs) AS BIOMARKERS IN CLEAR CELL RENAL CANCER

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P-33 CIRCULATING TUMOR CELLS IMPROVE STAGING OF PATIENTS WITH COLORECTAL LIVER METASTASES

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P-34. DETECTION OF CIRCULATING TUMOR CELLS AND CIRCULATING TUMOR DNA BEFORE AND AFTER MAMMOGRAPHIC COMPRESSION IN A COHORT OF BREAST CANCER PATIENTS SCHEDULED FOR NEO-ADJUVANT TREATMENT

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P-35. CORRELATION OF IMMUNE AND CIRCULATING TUMOUR CELLS IN RESPECT TO PD-1 AND PD-L1 EXPRESSION DURING ANTI-PD-1 TREATMENT IN NON-SMALL CELL LUNG CANCER PATIENTS

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P-36. LONGITUDINAL MONITORING OF CIRCULATING TUMOR CELL CLUSTERS IN PATIENTS WITH METASTATIC BREAST CANCER SCHEDULED FOR 1ST LINE SYSTEMIC THERAPY

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P-37. CLINICAL UTILITY OF MOLECULAR ANALYSIS OF CIRCULATING TUMOR CELLS (CTCs) IN METASTATIC NASOPHARYNGEAL CARCINOMA (NPC) BY REAL-TIME SERIAL MONITORING

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P-38. CLINICAL USEFULNESS OF CTC ENUMERATION, EBV DNA, AND PET IMAGING FOR METASTATIC NASOPHARYNGEAL CARCINOMA

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P-39. DO WE HAVE TO CONSIDER AN EXTENSION OF HER2 ANALYSIS AND HER2 TREATMENT RECOMMENDATIONS IN BREAST CANCER?

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P-40. USE OF CIRCULATING TUMOR CELLS AS BIOMARKERS FOR MONITORING HEPATOCELLULAR CARCINOMA LIVER TRANSPLANT PATIENTS

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P-41. IDENTIFICATION OF RESISTANCE MUTATIONS USING CIRCULATING TUMOR CELLS (CTCs) FROM ALK-REARRANGED NON-SMALL-CELL LUNG CANCER (NSCLC) PATIENTS TREATED BY CRIZOTINIB

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P-42. DETECTION OF RESISTANCE MUTATIONS IN SINGLE CTCs FROM EGFR-MUTANT NON-SMALL CELL LUNG CANCER PATIENTS TREATED BY EGFR INHIBITORS

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P-43. UNIQUE INSIGHT INTO METASTASIS MUTATIONAL CONTENT THROUGH EXOME SEQUENCING OF CIRCULATING TUMOR CELLS IN METASTATIC PROSTATE CANCER

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P-44. ISOLATING CIRCULATING TUMOUR CELLS AND CIRCULATING TUMOUR DNA FROM PATIENTS WITH BRAIN CANCER

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P-45. EPIGENETIC PROFILING OF PATIENT-DERIVED SOLITARY CIRCULATING TUMOUR CELLS

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P-46. METHYLATION ANALYSIS OF CANCER-ASSOCIATED GENES IN PLASMA CELL-FREE DNA: ASSOCIATIONS TO BREAST CANCER PROGNOSIS

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P-47. MONITORING OF TREATMENT RESPONSE IN NSCLC PATIENTS BY ENUMERATION OF CIRCULATING TUMOR CELLS

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P-48. ASSOCIATION OF CIRCULATING TUMOR CELLS, - VESICLES AND - DNA WITH OVERALL SURVIVAL IN NSCLC

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P-49. LIQUID BIOPSIES AND OVARIAN CANCER: DIAGNOSTIC AND PROGNOSTIC VALUE OF CIRCULATING TUMOUR CELLS

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P-50. BLOOD BASED BIOMARKERS FOR PROGNOSIS AND MONITORING OF PATIENTS WITH MELANOMA

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P-51. DNA METHYLATION BIOMARKERS IN THE WNT SIGNALING PATHWAY: PROGNOSTIC AND PREDICTIVE VALUE IN METASTATIC COLORECTAL CANCER PATIENTS

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P-52. MOLECULAR ANALYSIS OF EPCAM+ AND EMT CELLS FROM NSCLC PATIENTS BY LIQUID BIOPSY

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P-53. CIRCULATING miRNAS FOR THE DETECTION OF METASTASIS IN PATIENTS WITH BREAST CANCER

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P-54. EVALUATION OF THE CLINICAL SIGNIFICANCE OF CTCs CO-EXPRESSING STEMNESS AND MESENCHYMAL FEATURES IN METASTATIC BREAST CANCER

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P-55. ISOLATION AND MOLECULAR CHARACTERIZATION OF A NEGATIVE ENRICHED CTCs POPULATION IN METASTATIC BREAST AND PROSTATE CANCER PATIENTS BEFORE AND AFTER TREATMENT

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P-56. DETECTION AND MOLECULAR CHARACTERIZATION OF CIRCULATING TUMOR CELLS IN ADRENOCORTICAL CARCINOMA

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P-57. EXPLORING TUMOUR HETEROGENEITY AND EVOLUTION IN NON-SMALL CELL LUNG CANCER WITHIN THE TRACERx STUDY THROUGH MOLECULAR PROFILING OF CIRCULATING TUMOUR CELLS (CTCs)

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P-58. CIRCULATING TUMOR CELLS (CTCs) DETECTION AND BECLIN-1 EXPRESSION IN NSCLC UNDERGOING CHEMO-RADIOTHERAPY

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P-59. IMMUNOHISTOCHEMICAL DETECTION OF LYMPH NODE-DTCs IN PATIENTS WITH NODE-NEGATIVE HEAD AND NECK SQUAMOUS CELL CARCINOMA (pNO-HNSCC)

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P-60. EPITHELIAL PLASTICITY IN TRIPLE NEGATIVE BREAST CANCER CIRCULATING TUMOR CELLS

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P-61. MOLECULAR CHARACTERIZATION OF CTCs FROM PATIENTS WITH ADVANCED NSCLC IS A VALUABLE STRATEGY TO PREDICT FIRST LINE CHEMOTHERAPY RESPONSE

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P-62. ASSESSMENT OF PLASMA CELL-FREE DNA LEVELS AND INTEGRITY IN CHEMO-NAÏVE PATIENTS WITH METASTATIC NSCLC

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P-63. TOWARDS LIQUID PROFILING OF MELANOMA – SUITABILITY FOR FIRST-LINE ASSESSMENT OF TUMOR MUTATIONAL STATUS AND TO MONITOR TARGETED THERAPY

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P-64. CIRCULATING TUMOR CELLS MEASURED IN THE PULMONARY VEIN AND THE RADIAL ARTERY DURING SURGERY OF EARLY NON-SMALL CELL LUNG CANCER

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P-65. DETECTION OF CIRCULATING TUMOR CELLS IN COLORECTAL CANCER PATIENTS USING THE GILUPI CELL COLLECTOR: RESULTS FROM A PROSPECTIVE SINGLE-CENTER STUDY

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P-66. DETECTION OF *ESR1* D538G MUTATION IN CIRCULATING TUMOR CELLS (CTCs) AND PAIRED CIRCULATING TUMOR DNA (ctDNA) SAMPLES OF BREAST CANCER PATIENTS

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P-67. *PIK3CA* MUTATIONAL STATUS IN CIRCULATING TUMOR CELLS (CTCs) AND CORRESPONDING CIRCULATING TUMOR DNA (ctDNA) IN BREAST CANCER PATIENTS

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P-68. *ESR1* METHYLATION IN PRIMARY TUMORS AND PAIRED CIRCULATING TUMOR DNA OF PATIENTS WITH HIGH-GRADE SEROUS OVARIAN CANCER

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P-69. *PD-L1* EXPRESSION IN CIRCULATING TUMOR CELLS OF PATIENTS WITH HIGH-GRADE SEROUS OVARIAN CANCER

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P-70. *AR-V7* STATUS AND CTC COUNT: A COMBINED BIOMARKER FOR THE BASELINE THERAPEUTIC DECISION IN EACH LINE OF mCRPC TREATMENT

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Friday October 6, 13:30–15:00, Session 3

P-71. POST-OPERATIVE SURVEILLANCE OF PATIENTS WITH COLORECTAL CANCER AFTER RADICAL RESECTION: A HIGHLY EFFICIENT MULTIGENE BIOCHIP IN COMPARISON WITH SERUM CARCINOEMBRYONIC ANTIGEN LEVEL

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P-72. PARSORTIX SYSTEM ENABLES ISOLATION OF VIABLE CTCs FROM LEUKAPHARESIS PRODUCT WITH SUBSEQUENT CULTURE

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P-73. ISOLATION AND CHARACTERIZATION OF HUMAN CIRCULATING TUMOR CELLS (CTCs) OF LUNG AND COLON CARCINOMAS

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P-74. VALIDITY OF AR-V7 UNEXPECTED RESPONDERS DETERMINED BY USING DISTINCT DETECTION TECHNOLOGIES

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P-75. DETECTION OF ANDROGEN RECEPTOR VARIANT 7 (*AR-V7*) IN PROSTATE CANCER CTCs USING PADLOCK PROBES

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P-76. IMAGING IDENTIFICATION OF LIVING CELLS BASED ON THE FEATURE OF QUANTITATIVE PHASE MICROSCOPE AND MACHINE-LEARNING FOR NEGATIVE SELECTION OF CTCs

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P-77. MPSEQ AND ITS APPLICATION TO LIQUID BIOPSIES FOR REAL TIME LONGITUDINAL DISEASE MONITORING

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P-78. ESTABLISHMENT AND EVALUATION OF A NOVEL METHOD FOR SIZE SEPARATION OF DISSEMINATED TUMOR CELLS FROM CANCER PATIENT BONE MARROW BY A MICROFLUIDIC PLATFORM

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P-79. CAPTURE AND CHARACTERISATION OF COLORECTAL CANCER CIRCULATING TUMOUR CELLS BY PARSORTIX

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P-80. A NEW WORKFLOW FOR MONITORING AND ANALYSING CIRCULATING MELANOMA CELLS

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P-81. PROFILING OF 5-HYDROXYMETHYLCYTOSINE IN CELL-FREE DNA. A NOVEL BIOMARKER APPROACH FOR EARLY DIAGNOSIS AND MONITORING OF CANCER

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P-82. ENUMERATION OF CIRCULATING TUMOR CELLS (CTCs) BY TWO IMMUNOAFFINITY METHODOLOGIES AND ASSESSMENT OF THE CTCs KRAS MUTATIONAL STATUS IN METASTATIC COLORECTAL CANCER PATIENTS

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P-83. LEUKOCYTE DEPLETION USING FERROFLUIDS TO ENRICH CIRCULATING TUMOR CELLS

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P-84. DETECTION OF ALK-POSITIVE CTCs USING IMMUNOFLUORESCENCE AND THE SIEMENS PLATFORM IN ALK-REARRANGED NSCLC PATIENTS

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P-85. MAGNETIC-BASED ENRICHMENT OF PANCREATIC CIRCULATING TUMOR CELLS: EXPLORING THE PERFORMANCE OF THE ISOFLUX AND THE KINGFISHER SYSTEMS IN DIAGNOSTIC LEUKAPHAERESIS SAMPLES

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P-86. TUMOR CELL CAPTURE FROM BLOOD BY FLOWING ACROSS ANTIBODY-COATED SURFACES

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P-87. ESTABLISHMENT OF AN ISOLATION PLATFORM FOR CIRCULATING TUMOR CELLS FROM CLEAR CELL RENAL CELL CARCINOMA

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P-88. EGFR MUTATIONAL DETECTION IN LIQUID BIOPSY (ctDNA & VORTEX-ENRICHED CTCs), AND COMPARISON TO TISSUE BIOPSY IN NSCLC PATIENTS

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P-89. EVALUATING THE METASTATIC POTENTIAL AND THE MOLECULAR HETEROGENEITY OF PATIENT-DERIVED ORTHOTOPIC XENOGRAFT MODELS OF TRIPLE-NEGATIVE BREAST CANCER

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P-90. DEVELOPMENT OF A BREAST AND LUNG CANCER RESEARCH PANEL TO TARGET THERAPEUTICALLY RELEVANT COPY NUMBER AND GENEFUSION VARIANTS FROM BLOOD

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P-91. MUTATION ANALYSIS OF CIRCULATING TUMOR CELLS ISOLATED FROM LUNG CANCER PATIENTS USING A LAB-ON-A-DISC

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P-92. OPTIMIZING A WORKFLOW FOR TRANSCRIPTOME ANALYSIS OF CTCs ISOLATED FROM VENOUS BLOOD

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P-93. CIRCULATING TUMOR CELLS IN THE PERIPHERAL BLOOD AND LEUKAPHERESIS PRODUCT OF NSCLC PATIENTS

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P-94. AN INNOVATIVE PIPELINE USING A METABOLISM-BASED METHOD TO DETECT CIRCULATING TUMOUR CELLS

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P-95. EVALUATION STUDY: DETECTING COPY NUMBER ALTERATION IN ctDNA USING LOW-COVERAGE WHOLE-GENOME SEQUENCING DATA

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P-96. MICROFLUIDIC DEVICE DESIGNED FOR CAPTURING MICROPARTICLES; A MODEL FOR ISOLATION OF CIRCULATING TUMOR CELLS

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P-97. PATIENT-LIKE CIRCULATING TUMOR DNA REFERENCE MATERIALS FOR EVALUATION OF NEXT GENERATION SEQUENCING TESTS

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P-98. ISOLATION OF CIRCULATING TUMOR CELLS WITH A NEW MEDICAL DEVICE: THE BMPROBE

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P-99. DETECTION AND IDENTIFICATION OF CULTURED TUMOR CELLS IN MICROFLUIDIC DEVICE

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P-100. RESULTS OF AN EXTERNAL QUALITY ASSESSMENT SCHEME (EQA) FOR ISOLATION AND ANALYSIS OF CIRCULATING TUMOR DNA (ctDNA)

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P-101. DETECTION, ISOLATION AND GENETIC ANALYSIS OF SINGLE DISSEMINATED CANCER CELLS FROM LYMPH NODES OF MELANOMA PATIENTS

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P-102. ANALYSIS OF NON-ADHERENT BREAST TUMOR CELLS AND CLINICAL SAMPLES IN A MICROFLUIDIC CELL TETHERING DEVICE MIMICKING FREE-FLOATING MICROENVIROMENTS

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P-103. IMPROVING IDENTIFICATION OF CELLS ENRICHED BY CELLSEARCH

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P-104. COMPARATIVE EXPLORATION OF NANOTECHNOLOGY-ENABLED PROTEIN BIOMARKER DISCOVERY TOOLS IN MELANOMA AND HUMAN LUNG CARCINOMA MODELS

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P-105. ENUMERATION OF CTC IN BLOOD FROM GASTROINTESTONAL CANCER PATIENTS USING A CROSSFLOW FILTRATION DEVICE

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P-106. *GSTP1* PROMOTER METHYLATION IN IN-VIVO ISOLATED CTCs FROM HIGH-RISK PROSTATE CANCER PATIENTS

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P-107. MULTIPLEX GENE EXPRESSION PROFILING OF *IN-VIVO* ISOLATED CIRCULATING TUMOR CELLS IN HIGH-RISK PROSTATE CANCER PATIENTS

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P-108. *ESR1* METHYLATION: A LIQUID BIOPSY-BASED EPIGENETIC ASSAY FOR THE FOLLOW UP OF PATIENTS WITH METASTATIC BREAST CANCER RECEIVING ENDOCRINE TREATMENT

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P-109. EVALUATION OF PRE-ANALYTICAL CONDITIONS AND QUALITY CONTROL STEPS FOR DNA METHYLATION STUDIES IN LIQUID BIOPSY APPLICATIONS

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P-110. EVALUATION OF WHOLE GENOME AMPLIFICATION METHODS FOR PCR BASED GENETIC DIAGNOSIS IN SINGLE CELLS

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P-111. *PD-L1* AND *CK-19* GENE EXPRESSION IN CTCs ISOLATED WITH AN EPITOPE-INDEPENDENT ENRICHMENT MICROFLUIDIC DEVICE IN COMPARISON TO EpCAM-BASED CTC ISOLATION IN PATIENTS WITH HEAD AND NECK SQUAMOUS CELL CARCINOMA

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P-112. EVALUATION OF PREANALYTICAL CONDITIONS FOR STUDYING GENE EXPRESSION IN CTCs

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P-113. SERIAL MONITORING OF PD-L1 EXPRESSION IN CTCs OF ESOPHAGEAL CARCINOMA PATIENTS

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P-114. PRELIMINARY RESULTS OF PHENOTYPIC CHARACTERIZATION OF CIRCULATING TUMOR CELLS AND MONITORING OF EGFR MUTATIONS USING LIQUID BIOPSY IN PATIENTS WITH EGFRmut NSCLC TREATED WITH AZD9291

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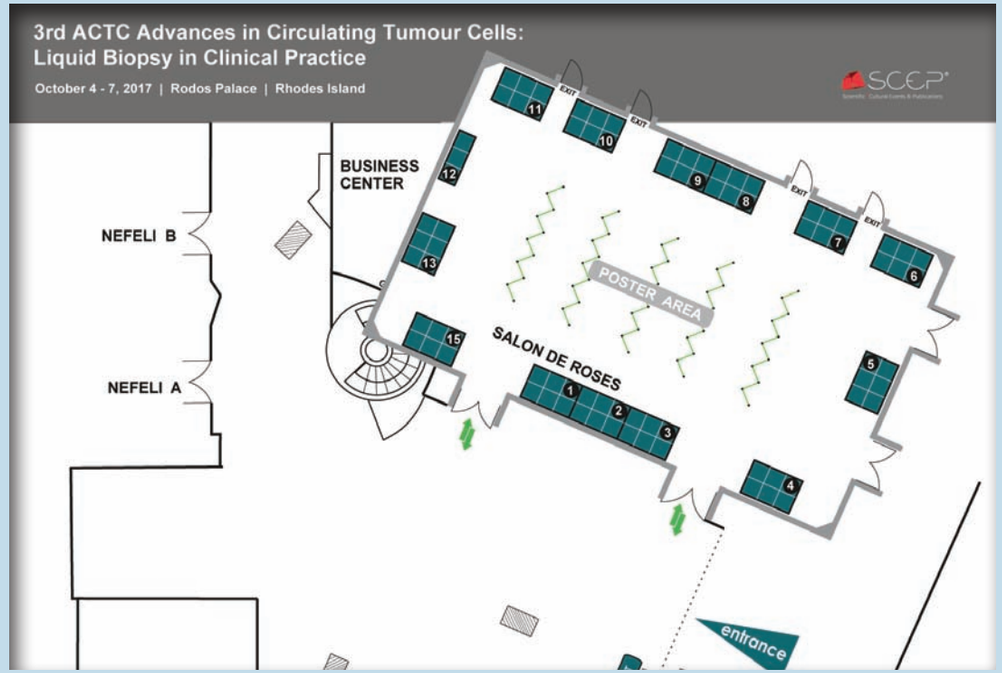
EXHIBITION OF LIQUID BIOPSY TECHNOLOGIES

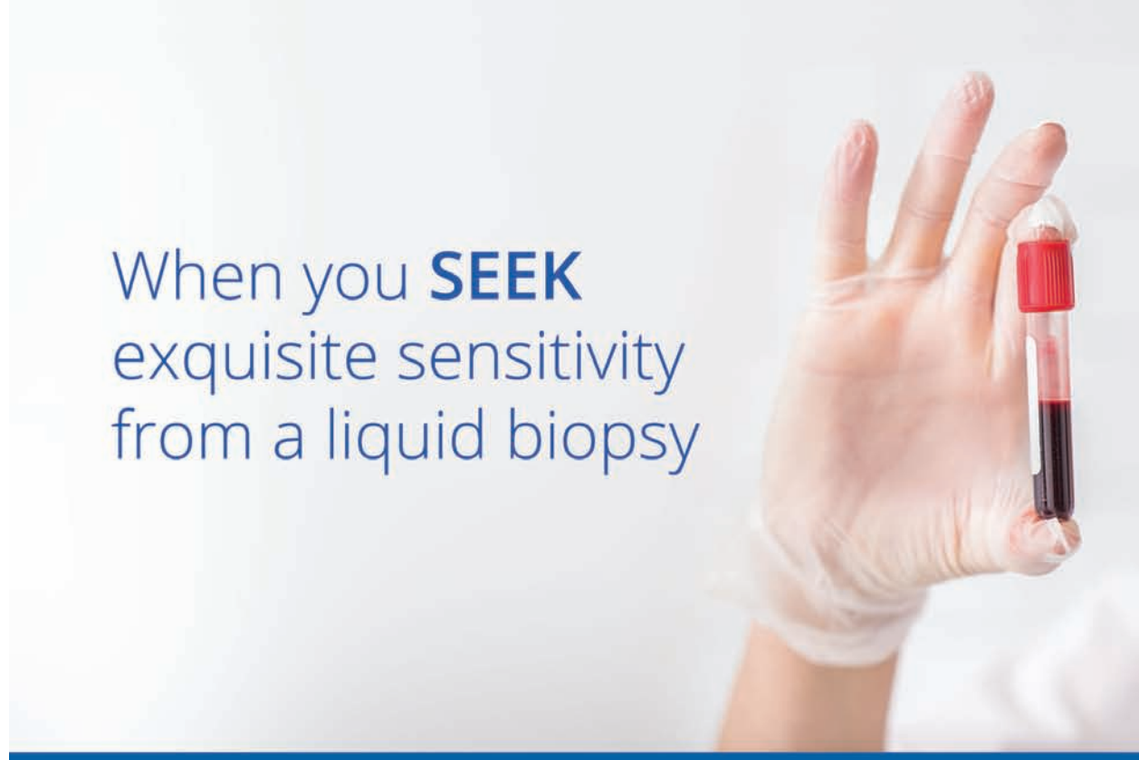
Floor Plan



Booth location

Booth # 1: Agena BIOSCIENCE
Booth # 2: AstraZeneca
Booth # 3: ThermoFisher SCIENTIFIC
Booth # 4: Vortex BIOSCIENCES
Booth # 5: MENARINI silicon biosystems
Booth # 6: Luminex complexity simplified.
Booth # 7: STILLA
Booth # 8: ALS Automated Lab Solutions
Booth # 9: QIAGEN
Booth # 10: Clearbridge BioMedics
Booth # 12: VyCAP
Booth # 13: BIO-RAD
Booth # 15: ANGLE

AstraZeneca



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Oncology Applications in Liquid Biopsy – An Emerging Era of Translational Research

Speaker: Darryl Irwin, Ph.D.
Sr. Director, Applications Development
Agena Bioscience

Please join us: Thursday, October 5th, 2017
16:30-17:00
ACTC 2017 - Booth # 1

Agena BIOSCIENCE

UltraSEEK™ is for Research Use Only. Not for use in diagnostic procedures.

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