THE 9TH SANTORINI CONFERENCE

SYSTEMS MEDICINE AND PERSONALISED HEALTH & THERAPY
« The Odyssey from Hope to Practice »

30 SEPTEMBER - 3 OCTOBER 2018
Nomikos Conference Center, Thira-Santorini, Greece

SPECIAL FOCUS ON CARDIO-METABOLIC DISEASES AND CANCER

FINAL PROGRAM

Under the auspices of:

With the partnership of:
Dear Colleagues, Dear Friends,

Throughout the past 16 years, 8 “Santorini Conferences” welcomed each time, about 140 registered participants coming from more than 30 different countries to a world of passion for science with specific Personalised Medicine sessions on Genetics and Pharmacogenomics of chronic diseases.

From innovative projects, such as the creation of the European Society of Pharmacogenomics and Personalised Therapy (ESPT) in 2010 and upcoming research to the quintessence of Personalised Medicine with promising and famous researchers, the “Santorini Conferences” had many faces and like a chameleon had the capacity to enchant academic and industry research in many ways.

Over the years, the “Santorini Conferences” became one of the most important conferences on genetic predisposition to health, disease, response to drugs and environment, in harmony with the island’s creative spirit, attracting scientists from all over the planet.

After 16 years, we are here again to follow The 9th Santorini Conference Systems Medicine and Personalised Health and Therapy: "The Odyssey from Hope to Practice", with a special focus on cardio-metabolic diseases and cancer.

We have conceived the idea of presenting the biggest achievements of the Personalised Medicine through time by using the trip of Odysseus from Troy to Ithaca (Odyssey, Homer) as a metaphor.

In this conference, inspired from Odyssey, we attempt to embark you on a ship and take you on a journey from Troy to Ithaca, through the history of the biggest events and achievements that have paved the way to the Personalised Medicine. We will sail among important genetic discoveries, passing through projects that contributed to the progress of pharmacogenomics studies and will propose ways to overcome the obstacles that are slowing down the possibilities of the full implementation of accumulated knowledge into everyday practice. This trip aims to push back the frontiers of present knowledge of genetics and of practical use of this knowledge in preventive, diagnostic and pharmacogenomics approaches promoting a direct impact on the socio-economic aspects of public health.

We have thus designed this Conference with 9 sessions, 7 oral communications, 2 satellite meetings organised in collaboration with the VEGF Consortium and the MAST4HEALTH EU Project, 2 workshops and 63 posters (http://santoriniconference.org). This time, more than 150 registered participants coming from Academy, Industry and Clinics join the Conference!!!

Thank you for following the trip with us...

Sofia SIEST,
President of the Santorini Conference series
ORGANIZING & SCIENTIFIC COMMITTEES

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INFORMATION

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www.santoriniconference.org
## Scientific Program

### Sunday September 30th

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<td>Closed Meeting - MAST4HEALTH</td>
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<tr>
<td>16:00</td>
<td>Registration</td>
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<tr>
<td>18:00</td>
<td>Welcome</td>
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<td>18:30</td>
<td>Keynote Lecture</td>
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**Closed Meeting - MAST4HEALTH**

With the participation of:

- Georges Dedoussis, Athens, Greece
- Panagiotis Deloukas, London, United Kingdom
- Chiara Barbieri, Pisa, Italy
- Natasa Milic, Novi Sad, Serbia
- John Lamont, Crumlin, County Antrim, United Kingdom
- Maria Stathopoulou, Nancy, France
- Sofia Siest, Nancy, France

**Keynote Lecture**

Yannis Pantazis’ signature performance, comprised of ten original musical compositions each featuring a different instrument, recounts the journey of Odysseus, king of Ithaca, as he returns home to reclaim his kingdom and free his people from their oppressors. The performance is in a theatrical spirit, sporadically narrated in the original Greek.

### Monday October 1st

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<td>Coffee Break and Poster Visit</td>
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**Session I - 'Omics' Biomarkers Commonality in Cardio-Metabolic Diseases and Cancer – Can Sequencing Offer a Diagnosis?**

**Welcome Reception with Lyre Playing at the Petros Nomikos Center**

- The journey to personalised medicine – landmarks and challenges, Eric Boerwinkle, Houston, United States

### Tuesday October 2nd

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<tr>
<td>15:00</td>
<td>Session V - Gene-Environment Interactions in Cardio-Metabolic Diseases and Cancer</td>
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<td>16:00</td>
<td>Coffee Break</td>
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<tr>
<td>17:30</td>
<td>Session VI - Latest Insights in Stroke: Clinical Trials and Applicability of '-omics' Data in Patient's Stratification</td>
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<tr>
<td>18:00</td>
<td>Lunch Break</td>
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<td>19:00</td>
<td>Gala Dinner</td>
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**Session V - Gene-Environment Interactions in Cardio-Metabolic Diseases and Cancer**

**Gala Dinner**

### Wednesday October 3rd

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<tr>
<td>16:00</td>
<td>Randox Workshop</td>
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<td>17:30</td>
<td>Illumina Workshop</td>
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**Session VII - Pain Management - A 'Journey' From 'Clinical Trial' Via 'Post-Marketing Pharmacovigilance / Risk Management' to 'Success Story'**

**Conclusions**
SCIENTIFIC PROGRAM

MONDAY OCTOBER 1ST

09:00 SESSION I

‘-OMICS’ BIOMARKERS COMMONALITY IN CARDIO-METABOLIC DISEASES AND CANCER - CAN SEQUENCING OFFER A DIAGNOSIS?
Chairs: Panagiotis Deloukas, London, United Kingdom / Heiko Meyer, Hamburg, Germany

09:00 Metabolomics applied to novel cardiometabolic disease mechanisms and therapeutic targets, Christopher B. Newgard, Durham, USA

09:30 The 100,000 Genomes Project- transforming genomics in healthcare, Mark Caulfield, London, United Kingdom

10:00 The International Cancer Genome, Peter Campbell, Hinxton, United Kingdom

10:30 Personalised tumor markers, Eleftherios Diamandis, Toronto, Canada

11:00 COFFEE BREAK AND POSTER VISIT

12:00 SESSION II

UNMET CLINICAL NEEDS IN THE PREVENTION AND TREATMENT OF CARDIO-METABOLIC DISEASES AND CANCER – COMORBIDITIES
Chairs: Georges Weryha, Nancy, France / John Lamont, Crumlin, County Antrim, United Kingdom

12:00 Epigenetics of Cardiovascular Diseases, Manuel Rosa Garrido, Los Angeles, United States

12:30 Telomere length and the Cancer/Atherosclerosis trade off, Abraham Aviv, New Jersey, United States

13:00 ORAL COMMUNICATIONS SESSION
Chairs: Sofia Siest, Nancy, France / Eric Boerwinkle, Houston, United States

13:00 Genetic and protein profiling of cancer tumours, a first step towards personalised therapy, Said El Shamieh, Beirut, Lebanon

13:10 Genomic Medicine and Individualized Approaches in Africa: Challenges and Opportunities, Ibrahim Muntaser, Khartoum, Sudan

13:20 Welcome to a new world of Intelligent Connected Care, Gilles Lunzenfichter, Luzern, Switzerland

13:30 Temporal comorbidity patterns in prostate cancer disease trajectories based on semantic, phenotypic and genetic similarities, Alexia Giannoula, Barcelona, Spain

13:40 Investigation of novel biomarkers of drug-induced kidney injury in renal transplant recipients undergoing graft biopsy, Laurent Becquemont, Paris, France

13:50 Evolution of dihydropyrimidine dehydrogenase (DPD) diagnostics in a single center in a time-period of eight years, BJC van den Bosch, Maastricht, The Netherlands

14:00 Bridging the Multi-Omics Precision Medicine Gap in the Middle East: The Valdia Health Experience, Carlos Malpica, Doha, Qatar

14:10 LUNCH AND POSTER VISIT

17:00 SESSION III

PIPELINE CHALLENGES IN PRECISION MEDICINE – FROM PATIENT SAMPLING TO A CLINICAL REPORT
Chairs: George Dagher, Paris, France / Charity Nofziger, Salzburg, Austria

17:00 From Patient sampling to clinical report - The Austrian experience, Markus Paulmichl, Salzburg, Austria

17:30 Standardized improved pre-analytical workflows: the bridge to good quality samples for reliable analytical test results, Uwe Oelmueller, Hilden, Germany

18:00 Using tissue samples for quantitative protein and phosphoprotein analysis - critical considerations, Karl Friedrich Becker, Munich, Germany

18:30 Challenges in using liquid biopsies for precision medicine, Maria G. Daidone, Milan, Italy

19:00 SESSION IV

PGX - REGULATORY PERSPECTIVES AND FUTURE TECHNICAL/ANALYTICAL DEVELOPMENTS
Chairs: Markus Paulmichl, Salzburg, Austria / Lynn Webster, Salt Lake City, United States

19:00 EMA Good Pharmacogenomic Practice (GPP) group EMA: Pharmacogenomics Working Party: Relevant new Guidelines, Markus Paulmichl, Salzburg, Austria

19:30 Upcoming Challenges in PGx - Plasmonic biosensing for liquid biopsy applications: the ULTRAPLACAD platform, Giuseppe Spoto, Catania, Italy

21:00 GALA DINNER
DEMILMAR IN PERISSA
SCIENTIFIC PROGRAM

TUESDAY OCTOBER 2ND

09:00  SESSION VIII
PHARMACOGENOMICS: CHALLENGES OF CLINICAL TRANSLATION
Chairs: Urs Meyer, Basel, Switzerland / Charity Nofziger, Salzburg, Austria
09:00  • Safety of drug treatment in oncology: A genomic perspective, Federico Innocenti, Chapel Hill, United States
09:30  • Technical Challenges in CYP2D6 analysis, Charity Nofziger, Salzburg, Austria
10:00  • Pharmacogenomics - A paradigm for digital medicine, Urs A. Meyer, Basel, Switzerland
10:30  • Implementation of Pharmacogenetics in Turkish Clinical Practice: The Example of Dihydropyrimidine Dehydrogenase, Belgin Süsleyici, Istanbul, Turkey
10:50  • Pharmacogenetics as the Basis of Individualized Therapy Decisions, Alexander Jetter, Zürich, Switzerland

11:10  COFFEE BREAK

11:30  SESSION IX
WHAT CAN WE LEARN FROM ELECTRONIC HEALTH RECORDS?
Chairs: Panagiotis Deloukas, London, United Kingdom / Markus Paulmichl, Salzburg, Austria
11:30  • Using Big Data to interpret genomes to accelerate drug discovery, Rong Chen, Mount Sinai, United States
12:00  • Electronic health records linked to genetics: role of national phenotyping efforts in the United Kingdom as a step towards an international phenome sequence project, Harry Hemingway, London, United Kingdom
12:30  • Primary health data in a cohort of over 20,000 people in East London, Richard Trembath, London, United Kingdom
13:00  • Linking genetic data to risk of recurrent cardiovascular events through hospital records, Panagiotis Deloukas, London, United Kingdom

13:30  CONCLUSIONS & PERSPECTIVES REMARKS
by Sofia Siest, Nancy, France and Urs Meyer, Basel, Switzerland

WEDNESDAY OCTOBER 3RD

09:00  SESSION V
GENE-ENVIRONMENT INTERACTIONS IN CARDIO-METABOLIC DISEASES AND CANCER
Chairs: Robert Barouki, Paris, France / Michael Marschler, Mannheim, Germany
09:30  • Nutrigenetics in Non-Alcoholic Fatty Liver Disease, Georges Dedoussis, Athens, Greece
10:00  • A perspective on interaction effects in genetic association studies - from detection to risk prediction, Hugues Aschard, Paris, France
10:30  • Exposome/epigenomics and clinical application, Robert Barouki, Paris, France

11:00  COFFEE BREAK

11:30  SESSION VI
LATEST INSIGHTS IN STROKE: CLINICAL TRIALS AND APPLICABILITY OF ‘-OMICS’ DATA IN PATIENT’S STRATIFICATION
Chairs: John Lamont, Crumlin, County Antrim, United Kingdom, Federico Innocenti, Chapel Hill, United States
11:30  • Stroke pharmacogenetics: from hope to reality, Guillaume Pare, Hamilton, Ontario, Canada
12:00  • Protein Biomarkers and diagnosis of ischemic stroke, Alexander Haliassos, Athens, Greece

12:30  RANDOX WORKSHOP
CLINICAL EVALUATION OF THE TYPE 1 DIABETES GENETIC RISK ARRAY
Moderator: John Lamont, Crumlin, County Antrim, United Kingdom
Speaker: Cliona Johnston, Crumlin, County Antrim, United Kingdom

13:30  LUNCH

14:30  CLOSED MEETING - VEGF CONSORTIUM

16:00  ILLUMINA WORKSHOP
PHARMACOGENOMICS FOR PRE-EMPTIVE SCREENING
16:00  • Pharmacogenetics using the Illumina GSA array, Ron Van Schaik, Rotterdam, The Netherlands
16:30  • Estonian personalised medicine initiative: polygenic risk scores, pharmacogenetics and rare mutations, Lilli Milani, Tartu, Estonia

17:00  SESSION VII
PAIN MANAGEMENT - A ‘JOURNEY’ FROM ‘CLINICAL TRIAL’ VIA ‘POST-MARKETING PHARMACOVIGILANCE / RISK MANAGEMENT’ TO ‘SUCCESS STORY’
Chairs: Michael Marschler, Mannheim, Germany / Lynn Webster, Salt Lake City, United States
17:00  • Genetic biomarkers as common denominators for specific pain disorders, Lynn Webster, Salt Lake City, United States
17:30  • Pharmacogenetics of opioid treatments, Laure Elens, Brussels, Belgium
18:00  • Pharmacogenomics in Post-Marketing Pharmacovigilance, Noelia Martín Granado, Madrid, Spain
18:30  • The adoption of Pharmacogenomics leading to patient benefit, Andrew Purchase, Swansea, United Kingdom