# 5\textsuperscript{th} Annual Meeting of NGFN-Plus and NGFN-Transfer in the Program of Medical Genome Research

**December 11 – 13, 2012**  
Communication Center DKFZ, Heidelberg

## Program-at-a-glance

### Tuesday, December 11\textsuperscript{th}

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>12.00 – 02.00 pm</td>
<td><strong>Satellite Symposium</strong>: Small RNAs (Org. Jürgen Haas and Jürgen Brosius)</td>
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<tr>
<td>02.00 – 02.30 pm</td>
<td><strong>Coffee Break</strong></td>
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<td>02.30 – 04.00 pm</td>
<td><strong>Satellite Symposium</strong>: Next-Generation Sequencing (Org. Stefan Wiemann and Bernd Timmermann)</td>
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<td>04.00 – 04.30 pm</td>
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<tr>
<td>04.30 – 05.00 pm</td>
<td><strong>Welcome</strong></td>
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| 05.00 – 07.00 pm | **Symposium I - International Projects in the Program of Medical Genome Research**  
Michael Taylor - Peter Lichter - Matthew Meyerson - Hans Lehrach |
| 07.00 pm      | **Supper**                                                            |

### Wednesday, December 12\textsuperscript{th}

<table>
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<th>Time</th>
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| 09.00 – 10.30 am | **Symposium II – International Projects in Genome Research**  
John Blangero - Joris A. Veltmann - Gerard D. Schellenberg |
| 10.30 – 11.00 am | **Coffee Break**                                                      |
| 11.00 – 12.00 am | **Symposium II – International Projects in Genome Research**  
Peter Jones - Jörn Walter |
| 12.00 – 02.00 pm | **Lunch Break and Poster Session I**  
**Company Satellite Sessions**  
Affymetrix - Caliper a Perkin Elmer Company - Illumina - Bio-Rad Laboratories |
| 02.00 – 03.30 pm | **Symposium II – International Projects in Genome Research**  
Wolfgang Wurst - Martin Hrabě de Angelis - Matthias Mann |
| 03.30 – 04.00 pm | **Coffee Break**                                                      |
| 04.00 – 05.00 pm | **Symposium III – Genomics of Common Disease I**  
André Reis - Vanessa Nieratschker - Andre Franke - Robert Häslar |
| 05.00 – 05.30 pm | **Coffee Break**                                                      |
| 05.30 – 06.00 pm | **Symposium III – Genomics of Common Disease I**  
Anke Hinney - Ralf Herwig |
| 06.00 – 07.00 pm | **Evening Lecture**: Randolph Nesse                                   |
| 07.00 – 10.00 pm | **Get-Together (Wine, Cheese, Live Music)**                           |

### Thursday, December 13\textsuperscript{th}

<table>
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| 09.00 – 10.15 am | **Symposium IV – Genomics of Common Disease II**  
Hugo A. Katus (Keynote) - Christina Loley - Martin Peifer - Christel Herold-Mende |
| 10.15 – 10.45 am | **Coffee Break**                                                      |
| 10.45 – 12.00 pm | **Symposium V – Functional Genomics**  
Jan Korbel - Gerrit Erdmann - Sven Lindner - Sören Westphal - Zouhair Aherrahrou |
12.00 - 02.00 pm  *Lunch Break and Poster Session II*

Company Satellite Sessions:
Life Technologies - Roche Diagnostics - SEQUENOM GmbH - Nanostring Technologies

02.00 - 02.15 pm  **Ceremony:** “Annemarie Poustka Poster Award 2012” sponsored by Roche Diagnostics Deutschland GmbH

02.15 - 03.45 pm  **Symposium VI: Personalized Medicine**
Rudi Balling (Keynote) - Nicole Teichmann - Margret Hoehe - Jeanette Erdmann - Brajesh Kaistha

03.45 - 04.00 pm  **Concluding Remarks: Markus Nöthen**, Spokesperson for the Project Committee of NGFN-Plus / NGFN-Transfer in the Program of Medical Genome Research

04.00 - 04.30 pm  **Closing Coffee**
**Program**

**Tuesday, December 11, 2012**

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<td>Coffee Break (DKFZ Communication Center)</td>
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<td>04.30 – 05.00 pm</td>
<td>Welcome - DKFZ Communication Center, Main Auditorium</td>
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<tr>
<td>04.30 – 05.30 pm</td>
<td>Wolfgang Wurst, Helmholtz Zentrum Munich, Germany, Speaker Project Committee of NGFN-Plus / NGFN-Transfer in the Program of Medical Genome Research</td>
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<td>N.N., Federal Ministry of Education and Research, Germany</td>
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<td>Christof von Kalle, National Center for Tumor Diseases (NCT)/ German Cancer Research Center (DKFZ), Heidelberg, Germany</td>
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<td>05.00 – 05.30 pm</td>
<td>Symposium I: International Projects in the Program of Medical Genome Research</td>
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<td>International Cancer Genome Consortium (ICGC)</td>
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<td>Michael Taylor, The Hospital for Sick Children, Toronto, Canada</td>
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<td>05.30 – 06.00 pm</td>
<td>International Cancer Genome Consortium (ICGC)</td>
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<td>Peter Lichter, German Cancer Research Center, Heidelberg, Germany</td>
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<td></td>
<td>Novel findings in pediatric brain tumors revealed by high resolution genome, methylome and transcriptome analyses</td>
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<td>06.00 – 06.30 pm</td>
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<td>Matthew Meyerson, Dana Farber Cancer Institute, Boston, USA</td>
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<td>Genome Alterations in Human Lung Cancers</td>
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<td>06.30 – 07.00 pm</td>
<td>1000 Genomes Project</td>
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<td>Hans Lehrach, MPI for Molecular Genetics, Berlin, Germany</td>
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<td>1000 Genomes Project – An integrated map of genetic variation</td>
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<tr>
<td>07.00 pm</td>
<td>Supper</td>
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</table>
Wednesday, December 12, 2012

Symposium II: International Projects in Genome Research

09.00 – 9.30 am  
**John Blangero**, Texas Biomedical Research Institute, San Antonio, USA  
*Identification of Complex Disease Genes Using Whole Genome Sequencing in Large Pedigrees*

09.30 – 10.00 am  
**Joris A. Veltman**, Radboud University Nijmegen Medical Centre, Nijmegen, The Netherlands  
*De novo diagnostics in patients with intellectual disability*

10.00 – 10.30 am  
**Alzheimer’s Disease Genetics Consortium (ADGC)**  
**Gerard D. Schellenberg**, University of Pennsylvania School of Medicine, Philadelphia, USA  
*Neurodegenerative disease genetics; GWAS, exomes and beyond*

10.30 – 11.00 am  
**Coffee Break**

11.00 – 11.30 am  
**International Human Epigenome Consortium (IHEC)**  
**Peter Jones**, USC Norris Comprehensive Cancer Center, Los Angeles, USA  
*The Cancer Epigenome*

11.30 – 12.00 pm  
**International Human Epigenome Consortium (IHEC)**  
**Jörn Walter**, Saarland University, Germany  
*Control of DNA-methylation in development*

12.00 – 02.00 pm  
**Lunch Break and Poster Session I**  
12:00 – 1.00 pm odd numbers  
1:00– 2.00 pm even numbers

Company Satellite Sessions

12.10 – 12.40 pm  
**Maik Pruess**, Affymetrix UK Ltd  
From basic research to clinical samples. When are microarrays the right tool for the job?

12.45 – 01.15 pm  
**Hannes Arnold**, Caliper a PerkinElmer Company  
Automation of NGS Sample Preparation: From Benchtop NGS to Genome Centers

01.20 – 01.50 pm  
**Luc Smink**, Illumina UK Ltd  
Illumina’s Genomics Research Portfolio: From Whole Genomes to Targeted approaches

01.55 – 02.25 pm  
**Pia Scheu**, Bio-Rad Laboratories GmbH  
Droplet Digital PCR: Molecular Biology in High Resolution
Symposium II: International Projects in Genome Research

02.00 – 02.30 pm  
*International Knockout Mouse Consortium / EUCOMM*  
**Wolfgang Wurst**, Helmholtz Zentrum Munich, Germany  
*International Mouse Knock-out Consortium: Resource to functionally validate all genes*

02.30 – 03.00 pm  
*International Mouse Phenotyping Consortium / EUMODIC*  
**Martin Hrabé de Angelis**, Helmholtz Zentrum Munich, Germany  
*Creating a comprehensive encyclopedia of mammalian gene function*

03.00 – 03.30 pm  
**Matthias Mann**, Max Planck Institute for Biochemistry, Munich, Germany  
*High resolution, quantitative mass spectrometry combines proteomics and genomics*

03.30 – 04.00 pm  
**Coffee Break**

Symposium III: Genomics of Common Disease I

04.00 – 04.15 pm  
**André Reis**, University Erlangen-Nuremberg, Germany  
*Range of genetic mutations associated with severe non-syndromic sporadic intellectual disability: An exome sequencing study*

04.15 – 04.30 pm  
**Vanessa Nieratschker**, Central Institute for Mental Health, Mannheim, Germany  
*Pre-, peri- and postnatal stress in human and non-human off-spring: A convergent approach to study genetic and epigenetic impact on depression*

04.30 – 04.45 pm  
**Andre Franke**, University Hospital Schleswig-Holstein, Kiel, Germany  
*Host-microbe interactions shape genetic risk for inflammatory bowel disease*

04.45 – 05.00 pm  
**Robert Häsler**, Christian Albrechts University of Kiel, Germany  
*Mapping the functional epigenome of Ulcerative Colitis in monozygotic twins*

05.00 – 05.30 pm  
**Coffee Break**

05.30 – 05.45 pm  
**Anke Hinney**, University of Duisburg-Essen, Germany  
*Childhood ADHD and obesity: Evidence for a common genetic link*

05.45 – 06.00 pm  
**Ralf Herwig**, Max Planck Institute for molecular Genetics, Berlin, Germany  
*An integrated catalogue of genome, methylome and gene expression variations in colon cancer*

Evening Lecture:

06.00 – 07.00 pm  
**Randolph Nesse**, The University of Michigan, Ann Arbor, USA  
*Evolutionary Medicine and Molecular Medicine: Synergistic Siblings*

07.00 – 10.00 pm  
**Get-Together (Wine, Cheese, Live Music)**
Thursday, December 13, 2012

**Symposium IV:** Genomics of Common Disease II

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<tr>
<td>09.00 – 09.30 am</td>
<td><strong>Keynote: Hugo A. Katus</strong>, Heidelberg University Hospital, Germany</td>
<td>Innovations in translational research – Successes of NGFN</td>
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<tr>
<td>09.30 – 09.45 am</td>
<td><strong>Christina Loley</strong>, University of Lübeck, Germany</td>
<td>Association of X-chromosomal variants with coronary heart disease: Results from a meta-analysis</td>
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<td>09.45 – 10.00 am</td>
<td><strong>Martin Peifer</strong>, University of Cologne, Germany</td>
<td>Toward a novel genomics-based taxonomy of lung cancer: The Clinical Lung Cancer Genome Project</td>
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<td>10.00 – 10.15 am</td>
<td><strong>Christel Herold-Mende</strong>, University of Heidelberg, Germany</td>
<td>Aberrant self-renewal and quiescence contribute to Glioblastoma aggressiveness</td>
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<tr>
<td>10.15 – 10.45 am</td>
<td><strong>Coffee Break</strong></td>
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**Symposium V: Functional Genomics**

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<td>10.45 – 11.00 am</td>
<td><strong>Jan Korbel</strong>, The European Molecular Biology Laboratory, Heidelberg, Germany</td>
<td>Genome sequencing of childhood medulloblastoma brain tumors links chromothripsis with TP53 mutations</td>
</tr>
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<td>11.00 – 11.15 am</td>
<td><strong>Gerrit Erdmann</strong>, German Cancer Research Center, Heidelberg, Germany</td>
<td>Secretion of Wnts is required for Wnt/β-catenin pathway activity in colorectal cancer (CRC) despite APC or β-catenin mutations</td>
</tr>
<tr>
<td>11.15 – 11.30 am</td>
<td><strong>Sven Lindner</strong>, University Hospital Essen, Germany</td>
<td>LIN28B induces neuroblastoma and enhances MYCN levels via let-7 suppression</td>
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<td>11.30 – 11.45 am</td>
<td><strong>Sören Westphal</strong>, University Clinic Ulm, Germany</td>
<td>Human BCL2-associated anathogene 3 (BAG3) mutations lead to dilated cardiomyopathy in zebrafish</td>
</tr>
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<td>11.45 – 12.00 pm</td>
<td><strong>Zouhair Aherrahrou</strong>, University of Lübeck, Germany</td>
<td>Cyp17a1 deficient mice display increased body weight, visceral/subcutaneous fat deposition and altered lipid metabolism</td>
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| 12.00 – 02.00 pm | **Lunch Break and Poster Session II** | 12:00 – 1.00 pm odd numbers  
1:00– 2.00 pm even numbers |
Company Satellite Sessions:

12.10 – 12.40 am  Raimo Tanzi, Life Technologies GmbH
Ion torrent next Generation sequencing technology: the revolution of the revolution

12.45 – 01.15 pm  Janine Altmüller, Roche Diagnostics Deutschland GmbH
Whole exome sequencing (WES) speeds up gene identification in monogenetic human diseases

01.20 – 01.50 pm  Rebekka Krumbach, Oncotest, Susanne Müller, SEQUENOM GmbH
Translating Genomic Discovery into Human Health - The MassARRAY® for Somatic Mutation Profiling in Cancer and Quality Control for NGS Projects

01.55 – 02.25 pm  Jim White, Nanostring Technologies
Gene Expression Analysis Down to the single Cell level by Digital Quantification of Nucleic Acids Utilizing a Color-Coded Barcode Technology

Poster Award Ceremony:

02.00 – 02.15 pm  Ceremony: "Annemarie Poustka Poster Award 2012" sponsored by Roche Diagnostics GmbH
Christine Kuch, Roche Diagnostics Deutschland GmbH
Hugo A. Katus, Heidelberg University Clinics, Project Committee of NGFN-Plus / NGFN-Transfer in the Program of Medical Genome Research

Symposium VI: Personalized Medicine

02.15 – 02.45 pm  Keynote: Rudi Balling, Luxembourg Centre for Systems Biomedicine, Luxembourg
Systems approaches to Parkinson’s disease

02.45 – 03.00 pm  Nicole Teichmann, University Hospital rechts der Isar, Munich, Germany
A promising therapy strategy for PDAC: MEK1/2 inhibition with the novel chemotherapeutic drug BAY 86-9766 (RDEA119)

03.00 – 03.15 pm  Margret Hoehe, Max Planck Institute for Molecular Genetics, Berlin, Germany
Haplotype-resolving multiple human genomes: Key to personalized medicine and genome biology

03.15 – 03.30 pm  Jeanette Erdmann, University of Lübeck, Germany
The risk of myocardial infarction is increased by digenic mutation in GUCY1A3 and CCT7 - identified by exome sequencing in an extended family

03.30 – 03.45 pm  Brajesh Kaistha, University of Marburg, Germany
High-throughput cell-based assays identify Placenta-specific 8 (Plac8; Onzin) as a key regulator of proliferation and survival in pancreatic cancer cells

03.45 – 04.00 pm  Concluding Remarks: Markus Nöthen, Friedrich-Wilhelms University, Bonn, Spokesperson for the Project Committee of NGFN-Plus / NGFN-Transfer in the Program of Medical Genome Research

04.00 – 04.30 pm  Closing Coffee