



*OMICS FOR ASSESSING
UNCLEAR RISKS*

Program

Hosted by:  JÜLICH

MDC MAX DELBRÜCK-CENTRUM
FÜR MOLEKULARE MEDIZIN
BERLIN-BUCH

VERUM 

 Fraunhofer

SCOPE AND AIMS OF THE WORKSHOP

Risk assessment with regard to carcinogenicity so far is largely based on evidence from epidemiological and animal studies while *in vitro* studies only play a supporting role. Recently, however it has been suggested that new developments in omics technologies (genomics, proteomics, metabolomics etc.) might change this profoundly. In particular, omics technologies might be used to investigate potential modes of action regarding carcinogenicity more effectively than current research based on genotoxic studies can do. Omics technologies may also play an important role in identifying susceptible populations and life-stages as well as in animal-to-human extrapolation.

The aim of the workshop is to explore the potential of omics and cytogenetic technologies for cancer risk assessment, especially with respect to radio-frequency electromagnetic fields (RF-EMF) exposure. The risk of exposure to RF-EMF is unclear because reproducible hazards are not known. It will be discussed how insufficient knowledge of possible hazards can be used in risk

assessment, a pressing question in modern societies.

This workshop brings together international experts with different scientific backgrounds from omics and genotoxicity research, as well as from the field of RF EMF animal and epidemiological research. We expect that this will stimulate an open discussion about the pros and cons of omics for assessing unclear risks. The workshop is open to all interested parties and stakeholders.

Sponsors

www.imba-research.eu

www.fgf.de

www.sraeurope.org

www.verum-foundation.de



UPDATED SCHEDULE

(may be subject to on-site changes)

Monday, May 26th

09:00 Registration

13:35 Lunch

10:00 Welcome

Gerd Friedrich, Günter Obe

15:00 Conclusions from epidemiological studies

Gabriele Berg-Beckhoff

10:30 Short Workshop Overview

Peter Wiedemann

15:40 Assessing health risks from radiofrequency fields: a WHO perspective

Emilie van Deventer

RF EMF CANCER RISK ASSESSMENT: WHAT DO WE KNOW, WHAT DO WE NEED TO KNOW?

Chair: Gerd Friedrich

16:20 Coffee and Tea Break

10:40 Models of cancer development: genetic and environmental influences

Karin Müller-Decker

THE CONTRIBUTION OF GENOTOXIC RESEARCH TO RISK ASSESSMENT, PART I

Chair: Günter Obe

11:20 Coffee and Tea Break

16:40 Validity and reliability of genotoxic studies for cancer risk assessment

Günter Obe

11:50 Cytogenetic studies in mammalian somatic cells exposed to radiofrequency radiation: past, present and future

Vijayalaxmi

17:20 Chromosomal aberration analysis. Is it informative for RF-EMF exposure?

David Lloyd

12:30 Conclusions from animal studies

Jochen Buschmann

18:00 Discussion

18:30 Cheese and Wine reception

13:10 Tumor promotion by chronic UMTS-modulated radiofrequency exposure in mice prenatally treated with ENU

Thomas Tillmann

20:00 End of Day I

Tuesday, May 27th

THE RF CONTRIBUTION OF GENOTOXIC RESEARCH TO RISK ASSESSMENT, PART II

Chair: Günter Obe

09:00 Doing risk assessment based on genetic data

Marco Durante (talk given by Günter Obe)

09:40 Comparative risk assessment with ionizing and non-ionizing radiation

Jürgen Kiefer

10:20 Discussion

10:40 Coffee and Tea Break

THE CONTRIBUTION OF OMICS TO RISK ASSESSMENT

Chair: Björn Maul

11:00 Importance of epigenetic changes in cancer

Zdenko Herceg

11:40 Validity and reliability of current omics studies for cancer risk assessment

Ludger Klein-Hitpass

12:20 Discussion

12:40 Lunch

14:10 Future developments in omics technologies for cancer risk assessment

Peter Nürnberg

14:50 Future developments of proteomics for cancer risk assessment

Ulrich Stelzl

15:30 Discussion

15:50 Coffee and Tea Break

GUIDED DISCUSSION: OMICS CONTRIBUTIONS TO CRITICAL ISSUES IN CANCER RISK ASSESSMENT

Chair: Jürgen Kiefer

16:20 Omics for risk assessment: pathways to disease

Chris Portier

17:00 What have omics taught us about risks associated with exposure to ionizing radiation?

William Morgan

17:40 Discussion

18:20 End of Day II

19:00 Workshop Dinner in the Restaurant "Zum Paddenwirt"



Wednesday, May 28th

GUIDED DISCUSSION: OMICS CONTRIBUTIONS TO CRITICAL RISK ASSESSMENT

Chair: Jürgen Kiefer

09:00 Can extrapolation of “omic” data be applied appropriately to radio frequency field bioeffects?

Martin Meltz

OMICS FOR DEALING WITH UNCLEAR RISKS

Chair: Peter Wiedemann

09:40 The RF-EMF case I: Usability of “Omics”-Approach in Risk Assessment of RF-EMF

Dariusz Leszczynski

10:20 Coffee and Tea Break

10:40 The RF-EMF case II: Genomics Approach

Helmut Franke

11:20 Discussion

12:00 Lunch

13:00 Omics and the Precautionary Principle

Gary Marchant

13:30 Discussion

FINAL DISCUSSION: OMICS FOR ASSESSING UNCLEAR RISKS

Chair: William Morgan

Rapporteur: Myrtill Simkó

14:00 Final Discussion

14:50 Closing remarks

*Günter Obe,
Peter Wiedemann*

15:00 End of Workshop



VENUE:

dbb Forum Berlin

Friedrichstraße 169/170

D-10117 Berlin

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ANREISE

Von den Flughäfen:

Flughafen Tegel 10 km, ca. 20 min, mit der Buslinie *TXL*

Flughafen Schönefeld 22 km, ca. 40 min, mit der Regionalbahn / S-Bahn

Flughafen Tempelhof 4 km, ca. 10 min, mit der U-Bahn-Linie U6

Von den ICE-Bahnhöfen:

Hauptbahnhof 3 km, ca. 10 min, alle S-Bahnen Richtung *Friedrichstraße*

Ostbahnhof 4 km, ca. 10 min, alle S-Bahnen Richtung *Friedrichstraße*

Mit öffentlichen Verkehrsmitteln:

S 1, S 2, S 25, S 5, S 7, S 75, S 9, Regionalbahn

Bahnhof *Friedrichstraße*

U 2 Bahnhof *Stadtmitte*

U 6 Bahnhof *Französische Straße*

TXL Haltestelle *Unter den Linden / Friedrichstraße*

100 Haltestelle *Unter den Linden / Friedrichstraße*

200 Haltestelle *Unter den Linden / Friedrichstraße*

147 Haltestelle *Französische Straße*

Mit dem Auto:

Über den Autobahnring A 10 bis Dreieck Nuthetal, auf die A 115 bis Dreieck Funkturm / Berlin-Zentrum, auf dem Messedamm Richtung Zentrum, dann rechts auf den Kaiserdamm abbiegen.

Im weiteren Straßenverlauf geht der Kaiserdamm über in die Bismarckstraße / Straße des 17. Juni. Vor dem Brandenburger Tor rechts abbiegen und gleich wieder links in die Behrenstraße und geradeaus bis zur Friedrichstraße; dort wieder rechts abbiegen.

Das dbb forum liegt auf der rechten Seite an der nächsten Ecke Friedrichstraße / Französische Straße. Öffentliche Parkhäuser finden Sie an der Behrenstraße gegenüber der Komischen Oper und in den Friedrichstadtpassagen, Einfahrt über die Jäger- oder die Taubenstraße.

ORGANIZING COMMITTEE:

Gerd Friedrich - Forschungsgemeinschaft Funk e.V.

Peter Nürnberg - Cologne Center for Genomics

Günter Obe, Teltow

Peter Wiedemann - Jülich Research Centre

In case of need please contact one of the following persons:

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Hosted by:

