

Prof. Dr. Helmut Bartsch

Department: Toxicology and Cancer Risk Factors

CV:

HELMUT BARTSCH

Prof. Dr. rer. nat

Personal

Date of birth: October 23, 1940

Place of birth: Endersdorf, Germany

Academic Education and Appointments

1965

B.Sc., M.Sc. in Organic Chemistry, University of Heidelberg

1968

Ph.D. in Chemistry (Elucidation of the Structure of Phorbol), University of Heidelberg

1968 – 1970

Research Associate at the German Cancer Research Center, Heidelberg, (Institute of Biochemistry;

Director E. Hecker)

1971 – 1973

Postdoc at McArdle Laboratory for Cancer Research, Madison, Wisconsin, USA (with E.C. and J.A. Miller)

1974 – 1980

Scientist at WHO, Unit of Chemical Carcinogenesis, IARC, Lyon, France

1979

Habilitation in Experimental Oncology, Medical School in Hannover, Germany; docent and external faculty member

1981 – 1993

Unit Chief at WHO, Unit of Environmental Carcinogenesis and Host Factors, IARC, Lyon, France

1993 – 2005

Full Professor (Chair) at Heidelberg University; Head of the Division of “Toxicology and Cancer Risk Factors”, German Cancer Research Center (DKFZ), Heidelberg, with emphasis on research fields: (1) genetic cancer susceptibility markers, (2) DNA damage and genetic alterations in human tumorigenesis, (3) biomarkers for cancer etiology and prevention, (4) cancer chemoprevention/characterization of new preventive agents.

Publications

(This is not a complete list of publications, but only a selection of the major ones.)

Mueller S, Peccerella T, Qin H, Glassen K, Waldherr R, Flechtenmacher C, Straub BK, Millonig G, Stickel F, Bruckner T, **Bartsch H**, Seitz HK. Carcinogenic Etheno DNA Adducts in Alcoholic Liver Disease: Correlation with Cytochrome P-450E1 and Fibrosis. *Alcohol Clin Exp Res*. 2018 Feb; 42(2):252-259. doi: 10.1111/acer.13546. Epub 2017 Dec 19. PubMed PMID: 29120493.

Nair J, Nair UJ, Sun X, Wang Y, Arab K, **Bartsch H**. Quantifying etheno-DNA adducts in human tissues, white blood cells, and urine by ultrasensitive (32)P-postlabeling and immunohistochemistry. *Methods Mol Biol*. 2011; 682:189-205. doi: 10.1007/978-1-60327-409-8_14. PubMed PMID: 21057929.

Millonig G, Wang Y, Homann N, Bernhardt F, Qin H, Mueller S, **Bartsch H**, Seitz HK. Ethanol-mediated carcinogenesis in the human esophagus implicates CYP2E1 induction and the generation of carcinogenic DNA-lesions. *Int J Cancer*. 2011 Feb 1; 128(3):533-40. doi: 10.1002/ijc.25604. PubMed PMID: 20715111.

Nair J, Srivatanakul P, Haas C, Jedpiyawongse A, Khuhaprema T, Seitz HK, **Bartsch H**. High urinary excretion of lipid peroxidation-derived DNA damage in patients with cancer-prone liver diseases. *Mutat Res*. 2010 Jan 5; 683(1-2):23-8. doi: 10.1016/j.mrfmmm.2009.10.002. PubMed PMID: 19822158.

Wang Y, Millonig G, Nair J, Patsenker E, Stickel F, Mueller S, **Bartsch H**, Seitz HK. Ethanol-induced cytochrome P450E1 causes carcinogenic

etheno-DNA lesions in alcoholic liver disease. Hepatology. 2009 Aug; 50(2):453-61. doi: 10.1002/hep.22978. PubMed PMID: 19489076.

Dechakhamphu S, Yongvanit P, Nair J, Pinlaor S, Sitthithaworn P, **Bartsch H**. High excretion of etheno adducts in liver fluke-infected patients: protection by praziquantel against DNA damage. Cancer Epidemiol Biomarkers Prev. 2008 Jul; 17(7):1658-64. doi: 10.1158/1055-9965.EPI-08-0191. PubMed PMID: 18628417.

Meerang M, Nair J, Sirankapracha P, Thephinlap C, Srichairatanakool S, Fucharoen S, **Bartsch H**. Increased urinary 1,N6-ethenodeoxyadenosine and 3,N4-ethenodeoxycytidine excretion in thalassemia patients: markers for lipid peroxidation-induced DNA damage. Free Radic Biol Med. 2008 May 15; 44(10):1863-8. doi: 10.1016/j.freeradbiomed.2008.02.009. Epub 2008 Mar 4. PubMed PMID: 18342016.

Nair U, **Bartsch H**, Nair J. Lipid peroxidation-induced DNA damage in cancer-prone inflammatory diseases: a review of published adduct types and levels in humans. Free Radic Biol Med. 2007 Oct 15; 43(8):1109-20. Epub 2007 Jul 20. Review. PubMed PMID: 17854706.

Bartsch H, Nair J. Accumulation of lipid peroxidation-derived DNA lesions: potential lead markers for chemoprevention of inflammation-driven malignancies. Mutat Res. 2005 Dec 11;591(1-2):34-44. Epub 2005 Aug 15. PubMed PMID: 16099477.

Awards

1990

Prizes by L'Académie des Sciences and L'Académie Nationale de Médecine (Paris)

1991

Cover page of the journal CANCER RESEARCH in recognition of research on nitrosamines as human hazards

1992

Nakasone Cancer Research (NCR) Lecture Award

1999

Cover Page of the journal CANCER RESEARCH in recognition of research on background DNA damage

2000

Lectureship-Award within 10-years strategy for the Cancer Control Program by the Japanese Ministry of Health and Welfare

2001

Frits Sobels Award (Ghent, Belgium)