

**To whom it may concern!**

**Toxikologie und  
Krebsrisikofaktoren**  
C010  
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C010-2: Chemoprävention

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Heidelberg, den 27.03.06

### Scientific reference for Dr. Roli Budhwar

Dr. Roli Budhwar was a member of the workgroup 'Chemoprevention' in the Division 'Toxicology and Cancer Risk Factors' from May 1, 2005 – December 31, 2005 and from February 1, 2006 – March 31, 2006 as a Postdoctoral fellow. She performed the experimental research in an EU-funded project 'SEAHEALTH: Seaweed antioxidants as novel ingredients for better health and food quality'.

The aim of the proposed project was to determine the colon cancer chemopreventive potential of algae extracts *in vitro*. Dr. Budhwar's work within the project included three major areas: i) to monitor indirect antioxidant and radical scavenging effects of an algae extract in a human colon cancer cell line, ii) to evaluate the influence of the algae extract on Phase 1 and 2 metabolizing enzymes in colon cancer cell culture, iii) to investigate the mechanisms of anti-proliferative effects of the algae extract in human colon cancer cells.

For the research project, Dr. Budhwar applied the following techniques:

- Mammalian cell culture and cell proliferation assays, including the determination of cytotoxicity by Sulforhodamin B staining
- Fluorimetric determination of oxygen radical absorbance capacity (ORAC)
- Photometric determination of enzymatic activities of antioxidant proteins, including superoxide dismutase, catalase, glutathione peroxidase and thioredoxin reductase
- Photometric determination of glutathione and glutathione S-transferase activity in cell lysates
- High-performance liquid chromatography for the determination of the lipid peroxidation marker malondialdehyde.
- Western blotting for the detection of pro-and anti-apoptotic proteins
- Computer-assisted evaluation of results and graphical presentation

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Dr. Budhwar joined the group when the project was already ongoing. Due to her previous research experience, she rapidly got into the new subject. Although the time was very limited, she was able to bring the project to a successful end.

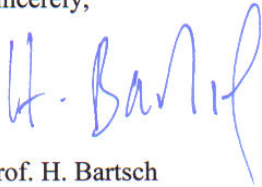
Dr. Budhwar is a committed scientist who is used to work independently. Based on published references, she successfully established methodology for measuring activities of various antioxidant enzymes in the laboratory. She rapidly picked up various experimental techniques and applied herself conscientiously and diligently to her experimental work. She obtained good results in a short time and wrote a comprehensive report to summarize her work.

Due to her open and honest personality, she was very easy to supervise. She is very helpful, friendly and an excellent team player. She was highly esteemed by both superiors and peers.

Dr. Budhwar's employment ends with the official end of the EU-project. We thank Dr. Budhwar for her committed contributions and we wish her all the best for the future.

With best regards,

Sincerely,



Prof. H. Bartsch



Dr. C. Gerhäuser