

# Lubinski Jan, MD, PhD

## Research and professional experience:

1977-85	Assistant, Dept Pathomorphology, Pomeranian Academy of Medicine, Szczecin.
1981-82	Visiting Scientist, French Government Fellowship, Pasteur Institute, Paris.
1985-89	Assistant Professor, Dept. Tumour Pathology, Pomeranian Academy of Medicine, Szczecin.
1987-88	Visiting Scientist, Fulbright Fellowship. The Wistar Institute, Philadelphia.
IV-VII 1989 and 1991	Visiting Scientist. The Fels Institute for Cancer Research and Molecular Biology, Temple University, Jefferson Cancer Institute, Philadelphia.
1989	Associate Professor, Head of Dept. Of Genetics and Pathology, Pomeranian Academy of Medicine
1992	Professor
1992	Organiser and head of Regional Hereditary Cancer Centre, Szczecin.
1993-99	Rector for Science, Pomeranian Academy of Medicine, Szczecin.
I-II 1994	Visiting Scientist, Jefferson Centre Institute, Philadelphia.
1997 – to date	Representative of Poland and member of Expert Committee for Europe and Africa in UICC programme “Familial Cancer and Prevention”
1998	Author and co-ordinator of project on development of Polish Network of Hereditary Cancer Centres.
1998 – to date	National Consultant of Clinical Genetics.
1999 - 2002	Author and co-ordinator of project on development of cancer family syndrome registries in Eastern Europe.
2003 – to date	Head of International Hereditary Cancer Center of Pomeranian Medical University
2003 – to date	Founder and one of editors-in-chief of the journal <i>Hereditary Cancer in Clinical Practice</i>
2005 – to date	Polish representative for the Contact Group to ETP Innovative Medicine, European Commission
2005	Doctor Honoris Causa of Riga Stradins University, Riga, Latvia
2006 – to date	European Society of Human Genetics Board Member

## Competence

Prof. Jan Lubinski has been working in the field since 1992. He is a head of International Hereditary Cancer Centre (IHCC), Pomeranian Medical University, Szczecin, Poland - unit being UICC associated member. IHCC has a status of Centre of Excellence awarded by Polish Committee of Science. Prof. Lubinski is an author and co-author of ~ 250 publications on hereditary cancer most of which has been published in journals from SCI list. He has been an author and co-ordinator of 3-year EC project on Development of Cancer Family Syndrome Registries in Eastern Europe (no QLRI-CT-1999-00063) and 2-year EC project on Identification of new cancer susceptibility genes by linkage analyses in Polish families with aggregation of breast or colorectal cancers (no MTKD-CT-2004-510114).

## Summarisation of the most important achievements:

1. Creation of International Hereditary Cancer Centre and Department of Genetics and pathology of Pomeranian Medical University with significant international position due to achievements mainly on diagnosis and prophylactics of hereditary cancers elaborated in Poland in collaboration with scientists from other countries.
2. Publication together with his team around 250 publications on hereditary cancers during the last 10 years . Most of them are papers published in SCI journals including *JAMA*, *Journal of National Cancer Institute*, *American Journal of Human Genetics*, *Cancer Research*, *Journal of Clinical Oncology*, *PNAS*, *Lancet Oncology*, *Cancer Research*.
3. Realisation of numerous international collaborative studies. Prof. Lubinski has been a coordinator of projects:

- MZ/NIH-96-287 – Genomic deletions as markers for renal carcinoma diagnosis; U.S.-Poland Maria Skłodowska–Curie Joint Fund II.
- ERB 3510-PL-92-2713 – Molecular genetic analyses in diagnosis of renal cell carcinoma – EC project;
- MZ/HHS-91–75 - Molecular genetic analyses in tumour diagnosis; U.S.-Poland Maria Skłodowska–Curie Joint Fund II.
- QLRI-CT-1999-00063 - Development of network of cancer family syndrome registries in Eastern Europe 5<sup>th</sup> Framework Programme of European Union
- MTKD-CT-2004-510114 - Identification of new cancer susceptibility genes by linkage analyses in Polish families with aggregation of breast or colorectal cancers, 6<sup>th</sup> Framework Programme of European Union

#### 4. Co-authorship of:

- 3 approved American patents:

- Polymorphism in the human NBS1 gene useful in diagnostic of inherited predisposition to cancer (The diagnostic test for identification of inherited predisposition to prostate cancer – analysis of 657 del5 founder mutation in the NBS1 gene) - 60/478068 USA, PCT/PL04/00044 (2004)
- Determining a predisposition to cancer (NBS1) - 10/867, 578 USA (2008)
- Determining a predisposition to cancer (NOD2, CHEK2, P-16/CDKN2A) - PCT/PL2005/00006, 11/037,657 USA. (2005)

- 3 approved Polish patents:

- Sposób i zestaw diagnostyczny do wykrywania mutacji genów BRCA1 i BRCA2 w polskich rodzinach z agregacją raków sutka i/lub jajnika - PL 185957
- Sposób i zestaw diagnostyczny do wykrywania mutacji genów MSH2 i MLH1 w polskich rodzinach z zespołem Lyncha (HNPCC) – P.350499
- Środek farmaceutyczny do suplementacji pożywienia dla ludzi oraz sposób wytwarzania środka farmaceutycznego do suplementacji pożywienia dla ludzi – P.192139

- numerous other international, American and Polish patent applications – pending.

5. Population screening for familial cancers – family doctors and nurses performed screening for cancer family history of all inhabitants – population of 1.5 mln, of West-Pomeranian Region in Poland. Programme of entire population screening for all types of familial cancer is, according to our knowledge, the first in the world.
6. Publication under auspices of UICC peer-reviewed journal *Hereditary Cancer in Clinical Practice*, editors-in-chief: J. Lubinski, R. Scott, R. Sijmons.
7. Development of registry unique at worldwide scale of cancer family syndromes with the following parameters:
  - more than 4,200 of diagnosed and registered BRCA1 mutation carriers – the largest number in the world,
  - more than 10,000 registered families with other cancer family syndromes or strong aggregation of malignancies with biological samples available from at least 1 affected relative,
  - almost 180,000 DNAs from cancer patients or their relatives,
  - almost 7,000 cell lines from BRCA1 mutation carriers,
  - pedigree data from 1,258,000 persons – more than 80% of Regional Health Care Company collected during realisation of 1<sup>st</sup> worldwide project for inherited cancer prevention.
8. The first world-wide demonstration of genetic contribution to all cancers using the model of breast cancers from homogenous Polish population (Breast Cancer Res Treat 2008)

## 9. Other scientists' opinions:

**Prof. Steven Narod** – University of Toronto: „I am writing to offer my full support for your proposal of dietary prevention of breast cancer in BRCA1 carriers using selenium supplementation. (...) In fact this study has now become my number one research priority. (...) The potential impact of this study is enormous. This study will also help us generate the largest database in the world for studying other clinical and epidemiological factors in women at high risk of breast cancer” (15.07. 2003)

“The Hereditary Cancer Centre in Szczecin has become a first-class training centre for PhD scientists and clinical-scientists, and many of the graduates have become notable scientists in their own right. The ability to conduct clinical research and epidemiology studies depends on the ability to generate large and databases of high quality. In this regard Dr Lubinski stands out from his peers. There are over fifty clinical centres throughout Poland which contributed data to this endeavour. There is no other country where the spirit of cooperation has been developed to this degree and there is no other leader who has been able to create a similar national network. The value of this resource continues to grow with each passing year “ (10.12.2006)

**Prof. Henry Lynch, Creighton University:** „Dr Lubinski’s research in hereditary cancer has been truly of landmark quality in many areas including hereditary breast cancer. I was also deeply privileged to have had an opportunity to work with Jan on HNPCC (Lynch syndrome). In that syndrome he has worked actively with the International Collaborative Group of HNPCC. (...) Jan is a highly accomplished pathologist (...) This is one of countless areas of expertise of which Dr Lubinski has shown outstanding expertise. (...) In addition to Dr Lubinski’s genetic, molecular genetic, pathology and basic science accomplishments, Jan has a personality which makes one feel “at home”; this impacts heavily in a most favorable way upon his colleagues, and thereby, enhances their own motivation toward the scientific discipline in their research projects. His honesty is beyond reproach.” (8.12. 2006)

### List of a few recent and the most important publications

1. Lubinski J et al, Genetic contribution to all cancers: the first demonstration using the model of breast cancers from Poland stratified by age at diagnosis and tumour pathology, *Breast Cancer Res Treat.* 2008.
2. Talseth BA et al., Lubinski J et al Aurora-A and Cyclin D1 polymorphisms and the age of onset of colorectal cancer in hereditary nonpolyposis colorectal cancer. *Int J Cancer.* 2008 Mar 15;122(6):1273-7
3. Jaworowska E et al, Lubinski J. Familial association of laryngeal, lung, stomach and early-onset breast cancer. *Breast Cancer Res Treat.* 2007 Dec [Epub].
4. Couch FJ et al, Lubinski J et al. AURKA F31I polymorphism and breast cancer risk in BRCA1 and BRCA2 mutation carriers: a consortium of investigators of modifiers of BRCA1/2 study. *Cancer Epidemiol Biomarkers Prev.* 2007 Jul; 16 (7): 1416-1421.
5. Cybulski C et al, Lubinski J. A deletion in CHEK2 of 5,395 bp predisposes to breast cancer in Poland. *Breast Cancer Res Treat.* 2007 Mar; 102 (1): 119-122.
6. Cybulski C et al, Lubinski J. Epistatic relationship between the cancer susceptibility genes CHEK2 and p27. *Cancer Epidemiol Biomarkers Prev.* 2007 Mar; 16 (3): 572-576.
7. Talseth BA et al, Lubinski J, Scott RJ. MDM2 SNP309 T>G alone or in combination with the TP53 R72P polymorphism does not appear to influence disease expression and age of diagnosis of colorectal cancer in HNPCC patients. *Int J Cancer.* 2007 Feb; 120 (3): 563-565.
8. Talseth BA et al, Lubinski J, Scott RJ. Genetic polymorphisms in xenobiotic clearance genes and their influence on disease expression in hereditary nonpolyposis colorectal cancer patients. *Cancer Epidemiol Biomarkers Prev.* 2006 Nov; 15 (11): 2307-2310.
9. Gronwald J et al, Lubinski J. Male to female ratio among offspring of BRCA1 mutation carriers. *Breast Cancer Res Treat.* 2006 May; 97 (1): 113-114.
10. Ylisaukko-Oja SK et al, Lubinski J, Aaltonen LA. Germline fumarate hydratase mutations in patients with ovarian mucinous cystadenoma. *Eur J Hum Genet.* 2006 Jul; 14 (7): 880-883.
11. Masojc B et al, Lubinski J. Cancer Familial Aggregation (CFA) and G446A polymorphism in ARLTS1 gene. *Breast Cancer Res Treat.* 2006 Sep; 99 (1): 59-62.
12. Jakubowska A et al, Lubinski J et al. Methylenetetrahydrofolate reductase polymorphisms modify BRCA1-associated breast and ovarian cancer risks. *Breast Cancer Res Treat.* 2007 Sep; 104 (3): 299-308.
13. Cybulski C et al, Lubinski J. CHEK2-positive breast cancers in young Polish women. *Clin Cancer Res.* 2006 Aug 15; 12 (16): 4832-4835.
14. Finch A et al, Lubinski J et al. Salpingo-oophorectomy and the risk of ovarian, fallopian tube, and peritoneal cancers in women with a BRCA1 or BRCA2 Mutation. *JAMA.* 2006 Jul 12; 296 (2): 185-192.