Curriculum Vitae / Dr BEATRIX KOTLAN PhD

Scientific Principal Investigator

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Education:

- **Hungarian Academy of Sciences, Scientific degree: PhD / Doctor of Philosophy in Biological Sciences, (1991)** No: 13623, excellent,
- **Eotvos Lorand Univ. of Sciences (ELTE),** Budapest, Faculty of Natural Sciences, Biology, excellent

Work History:

- **National Institute of Oncology/ Center of Surgical and Molecular Tumorpathology,** Budapest 1122 Rath Gy street 7 -9, Hungary, Scientific principal investigator (2008 – present)
- National Medical Center/ Department of Molecular and Cellular Biology, Budapest, Hungary, Scientific principal investigator
- National Institute of Haematology and Immunology/ Department of Cellular and Tumorimmunology, Budapest, Hungary, Dep. Chief of Dept. Tumorimmunology
- Hungarian Academy of Sciences, Institute of Enzymology, Budapest

Work experience:

1/ Glycobiology, glycoimmunomics: Revealing of novel biomarkers, and development of immunoassays for the detection of cancer associated glycosphingolipides. (present field)

2/ Antibody engineering: Development of novel tumor binder antibody based immunoconjugates for diagnostic and therapeutic usage. (present field)

3/Tumorimmunology: Revealing the role of immunocompetent cells in cancerous tissues. TIL-B phage display technology. Study on tumor progression mechanisms. (present field)

3/ Reproductive immunology: Development of novel diagnostic assays and therapeutic protocols to hinder pregnancy failure.

4/ Transplantation immunology: Development of immunological assays in transplantation immunology for bone marrow and kidney transplantation.

5/ Other: Phenotyping of leukemias and lymphomas and functional immunological assays for immunodeficiencies.

High skill in techniques: Standard RNA and DNA based techniques, RT-PCR, qRT-PCR, various other molecular genetic and molecular biological techniques, genetic engineering, bacterial and viral transformations and cloning, different expression systems, Phage display technology, DNA sequencing and analysis, immunoblotting, protein purification, Cell culture techniques, cytotoxic T lymphocyte cloning, analysis of CTL precursor frequency, limiting dilution assay (LDA), specific cytotoxic assays, immunofluorescence FACS analysis, immunofluorescence confocal laser microscopy, ELISA, Radioimmunoassays, ELISPOT, chamber slide and cytospin techniques, immunohistology, Tissue Microarray, Microarray technologies, thin layer chromatography (TLC), HPLC

Main scientific achivements:

10. Standardized immunohistochemical detection of cancer associated sialilated glycosphingolipide molecules (2009)
9. Immunglobulin repertoire analysis relevant to various tumor associated antigen specific antibodies in melanomas (2008)
8. TIL-B antibody phage display technology to reveal novel cancer associated biomarkers (2006)
7. GD3 ganglioside specific human antibody fragment development (2005)
6. Defining novel tumor target antigen on breast carcinomas. (2004)
5. Development and coordination of a nationwide immunological diagnostical and therapeutical protocol to avoid recurrent pregnancy failure (2003).
4. Generation of novel tumor specific antibody fragment (2002).
3. Defining immunoglobulin repertoire of tumor infiltrating B cells of breast carcinomas (1999).
2. Development of new complex assay to clear immunological background of pregnancy failure (1996).
1. Development of new cellular immunological assay to predict graft versus host rejection (1992).

Foreign languages: English (fluent, exam), **German** (fluent, exam), **French** (basic), **Russian** (basic exam)
Computer: proficient in Word, Excel, Power Point, GraphPad, Photoshop, Mathematical statistic and DNA sequence analysis programs (Vector NTI etc)

Current references:

1/ *Prof Dr Francesco M Marincola, MD, DSci*
Chief Infectious and Immunogenetics Section (IDIS), Dept of Transfusion Medicine, Clinical Center,
Associate Director, Trans-NIH Center for Human Immunology, National Institute of Health (NIH)
Director, CC/CHI FOCIS of Excellence, Bldg 10 – Room 1N226, Bethesda – Maryland 20892, USA,
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2/ *Dr Mepur H. Ravindranath, PhD*
Senior Research Scientist

Terasaki Foundation Laboratory, 11570 W Olympic Blvd. Los Angeles, CA 90064
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3/ Prof Dr Mark Glassy, PhD, DSci
Chairman and Professor, Integrated Medical Sciences Association Foundation
10246 Parkdale Avenue, CA 92126USA
E.mail: Markglassy@aol.com

4/ Prof Dr Jozsef Timar, PhD, MD, DSci
Director Dept Pathology, Semmelweis University, Budapest
Ulloi street 93, Budapest 1081, Hungary
E.mail: jtimar@korb2.sote.hu

5/ Prof Dr Gyozo Petranyi, PhD, MD, Dsci
Academician
National Blood Transfusion Service,
Karolina street 19 -21, Budapest 1113, Hungary
E.mail: pg13@t-online.hu

6/ Dr Jean-Luc Teillaud, PhD, DSci
Head of Inserm Unit, U255, Univ Pierre and Marie Curie, Jussieu Paris, France
15 rue de l`Ecole de Medecine 75270 Paris CEDEX 06 FRANCE
E.mail: jean-luc.teillaud@u255.bhdc.jussieu.fr

Hungarian and International Project proposals accepted and supported:

OTKA (F013346), ETT (T0219/96), ETT (172/2000), OTKA (T030380), NATO CLG LST No978639 (2001-2003), Proposals scientifically accepted (Biotechnology 2001, 2002), OTKA (T048933, 2005-2009), HJLCT Melanoma Research Foundation /US/ supported project (2010 -2012)

Recent and actual projects:

Honours, Awards:

- **Canadian Award** for participation at International Immunological Congress, 1986
- **Austrian scientific scholarship**, 1988
- **IARC** International Association for Cancer Research , 1992
- **CIES** Centre International des Etudes Scientifiques, 1996
- **French Assiciation for Cancer Research,** ARECA program 01/010, 1998
- **French Governmental Scholarship** (3x) 1998, 1999, 2002
- **Hungarian Eotvos Scholarship,** XLI/34/2000, 2001
- **NATO CLG LST** No 978639 2002-2003
- **AACR** American Association for Cancer Research Scholar Travel Award 2005

- **Fulbright Scholarship,** Research Grant No: 1206103 (26.0911)/ 5 months 2006/2007 extended to 11month
- **AACR Avon Foundation Scholar in Training Award** 2007
- **NERD** Novel Experimental Research Development (Series of Seminar) Award 2008
- **CITIM** Cancer Immunotherapy and Immunomonitoring Conference Presentation Award 2009
- **Harry J Lloyd Charitable Trust** Melanoma Research Foundation Award 2010

Experimental work abroad/ study tours and invited scientific visits:

1/ Dept of Clin. Immunol., Intestinal Medicine, *Univ. of Innsbruck, Austria,* 1984

2/ Central Lab. of the Holland Red Cross Blood Transfusion Service, Amsterdam, The Netherlands, 1990,

3/ Dept of Cellular and Clinical Immunology, INSERM U 255, Paris, France, *Institute Curie, Paris, France*, 1992 (*IARC, INSERM, France*)

4/, 5/, 6/ Inserm U 255, *Institue Curie, Paris, France*, 1996, 1998. 1999 (French Government Grants)

7/ *Inst. Mol. Biotechnology RWTH Aachen, Germany,* 2000 (Eotvos Grant/ Hungarian Government)

8/*Univ of Glasgow, Scotland*, 2000 (scientific visit, building collaboration)

9/ *a/ National Institute of Health, Clinical Center (NIH, CC), Bethesda - Washington* DC, USA, b/ *Rajko Medenica Research Foundation., San Diego* and *University of Arizona, Tucson, USA* (scientific visits, build collaboration for NATO CLG, 2001)

10/, 11/, 12 *Rajko Medenica Research Foundation/ San Diego, USA*, 2002, 2003, 2004 (*NATO, CLG* LST), 13/, 14/ 2005, 2006 (OTKA grant)

15/ *Rajko Medenica Research Foundation*/ San Diego, CA (RMRF support) (2006)

16/ *John Wayne Cancer Institute/* Santa Monica, CA, USA, 2006/2007 (Fulbright Research Scholarship No: 1206103 (26.0911)

17/ *Dept of Transfusion Medicine, Clinical Center, NIH, Bethesda and University of Yale, New Haven, USA* (scientific visit, invited speaker, build collaboration) 2008 OTKA T048933

18/ *Department of Medicine B and Center for Autoimmune Diseases, Sheba Medical Center* (Affiliated to Tel-Aviv University) Tel Hashomer 52621, Israel (scientific visit, invited speaker, buil collaboration, 2010 / Harry J. Lloyd Charitable Trust Awarded project)

Membership of professional Societies

AACR, WICR, iSBTC, EACR, ISRI, Hungarian Society of Immunology, Hungarian Society of Oncology, Hungarian Fulbright Association

Hobby: Work and: (http:// kotlanbeatrix.tk)

Publications:

Cumulative IF: 59.887, Citation:290 (without self citat)

Number of scientific publications: 31 international (6 bookchapt.), 15 hungarian (2 bookchapt.), 38 abstract,

Number of communications to scientific meetings: 41 international

Dr Beatrix Kotlan, PhD

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27th January 2011.

Dr Beatrix Kotlan - List of Selected Publications

1/ PUBLICATIONS IN ENGLISH:

- Petranyi G. Gy., Pocsik E., **Kotlan B**., Gorog Gy. and Benczur M., Regulatory function of cell surface molecules CD2, β2m, and LFA1 in natural killer cell activity. *Molecular Immunology* 23: 1275-1279. 1986 IF: 2,183

- Takacs K., Szabo T., **Kotlan B**., Petri I., Gyodi E., Kaiser G., Kassay M., Huber Ch. and Petranyi G. Gy., In vitro experiments on characteristic changes in functional immune parameters after planned immunisation with "Buffy-coat". *Transplant. Proc.* 18: 1321-1323, 1986 IF: 1,388

- **Kotlan B**., Bock., Rajnavolgyi E., Benczur M., Matyus L., Gyodi E., Huber Ch. and Petranyi G. Gy., The different effect of alpha and gamma interferons and interleukin-2 on the expression of CD2, CD3, CD4 and CD8 antigens in comparison to histocompatibility antigens of human lymphocytes, *Immunology Letters* 18: 259-268, 1988 IF: 1,137

- **Kotlan B**., Gyodi E., Szabó T., Takacs K., Troppmair J., Petri I., Padanyi A., Kaiser G., Kassay M., Huber Ch. and Petranyi G. Gy., Comparative study on alloimmune reaction induced by leukocyte and platelet transfusion in humans: Characteristic changes of activation markers, gamma interferon and FcR blocking antibody production, *Human Immunology* 22: 19-29, 1988 IF: 3,215

- Nachbaur K., Troppmair J., Bieling P., **Kotlan B.**, Konig P., Huber Ch., Cytokines in the control of b2microglobulin release I. In vitro studies on various haemopoietic cells. I*mmunobiology* 177: 55-65, 1988 IF: 2,706

- Nachbaur K., Troppmair J., **Kotlan B**., Konig P., Aulitzky W., Bieling P. and Huber Ch., Cytokines in the control of b2microglobulin release II. In vivo studies with recombinant interferons and antigens. *Immunobiology* 177: 66-75, 1988 IF: 2,706

- Troppmair J., Nachbaur K., Herold M., Aulitzky W., Tilg H., Gastl G., Bieling P., **Kotlan B.**, Flener R., Mull B., Aulitzky W., Rokos H., Huber Ch. In vitro and in vivo studies on the induction of neopterin biosynthesis by cytokines, alloantigens and lipopolysaccharide (LPS). *Clin. Exp. Immunol.* 74: 392-397, 1988 IF: 2,277

- Phan D.T., Benczur M., Paloczi K., Mihalik R., **Kotlan B**., Gidali J., Feher I., Domotori J., Kiss C. S., Petranyi G. Gy. Hollan S. R., Early expression of histocompatibility class I, and class II and myeloid antigens on human fetal liver cells., *Thymus,* 16:123-7, 1990. IF: 0,699

- Petranyi G. Gy., Padanyi A., **Kotlan B**., Gyodi E., Szigetvari I., and Kassay M. Cellular and humoral immunologic factors for the protection of trophoblast and embryo in human . *Regional Immunology* 6: 306-311, 1995

- Padanyi A., **Kotlan B**., Gyodi E., Perner F. and Petranyi G. Gy. Association between long term kidney graft survival and the presence of pre transplant cytotoxic anti HLA and/or non-MHC "blocking" anti-TLX alloantibody in relation to CTL precursor frequency., *Clinical Transplantation* 10: 455-460, 1996 IF: 1,682

- Padanyi A., Horuzsko A, Gyodi E, Reti M, Pocsik E, **Kotlan B**, Perner F. and Petranyi G.Gy. Humoral and Cell Mediated Factors Involved in the Suppressive Regulation Induced by Special Blood Derivates and Their Clinical Relevance. *Transplantation Proceedings* 30: 1-5, 1998 IF: 0,740

- **Kotlan B,** Gruel N, Zafrani B, Furedi G, Foldi J, Petranyi Gy G, Fridman WH, Teillaud JL., Immunoglobulin variable regions usage by B-lymphocates infiltrating a human breast medullary carcinoma. *Immunology Letters* 65: 143-151, 1999 IF: 1,494

- **Kotlan B**, Simsa P, Gruel N, Foldi J, Fridman WH, Petranyi Gy and Teillaud JL., A scFv phage display mini library generated from the immunoglobulin repertoire of breast medullary carcinoma infiltrating B lymphocytes. *Disease Markers:* 16: 25-27, 2000. IF: 0,539

- Varkonyi J, Zalatnai A, Timar J, Matolcsi A, Pocsik E, **Kotlan B,** Csaszar A, Laszlo V: Secondary cutaneous infiltration in B cell chronic lymphocytic leukemia. *Acta Haematol* 103: 116 -21, 2000 IF: 0,899

- **Kotlan B**, Fulop V, Padanyi A, Szigetvari I, Reti M, Gyodi E, Feher E, Petranyi Gy., High partner antigen specific cytotoxic T lymphocyte precursor frequencies in women with unexplained recurrent spontaneous abortions. *Human Reproduction,*16: 1278 – 1285, 2001 IF: 2,987

- Petranyi G Gy, **Kotlan B.,** Tolerance induction: historical and scientific background and recent development in clinical practice. Review, *Vox Sang.* Aug 83 Suppl 1:159-65. 2002 IF: 2,088

- **Kotlan B,** Simsa P, Foldi J, Fridman W H, Glassy M, McKnight M, Teillaud JL. Immunoglobuline repertoire of B lymphocytes infiltrating human breast medullary carcinoma. *Human Antibodies* 12: 113 – 121. 2003.

- **Kotlan B,** Simsa P, Teillaud JL, Fridman WH, Toth J, McKnight M, Glassy M, Novel ganglioside antigen identified by B cells in human medullary breast carcinomas. The proof of principle concerning the infiltrating B lymphocytes. *J. Immunology,* 175: 2278-2285. 2005 IF: 7,29

-Simsa P, Teillaud JL, Stott I D, Toth J, **Kotlan B**. Immunoglobulin variable region gene usage of B lymphocytes in ductal breast carcinomas. *Pathology Oncology Resrearch*, 11: 92-97, 2005 IF: 1,16

-**Kotlan B,** Toth J, McKnight M, Glassy MC. Characteristics of tumor gangliosides revealed by B cells infiltrating human Breast Carcinomas. *Human Antibodies* 15: (No1,2) 9 -13. 2006

- Kotlan B, Padanyi A**,** Reti M, Gyodi E, Rajczy K, Batorfi J, Petranyi Gy, Fulop V: Alloimmune and autoimmune background in recurrent pregnancy loss – Successful immunotherapy by IVIG. *American Journal of Reproductive Immunology Vol* 55: 331- 337. 2006. IF: 1,89

- Glassy MC, McKnight ME, **Kotlan B,** Glassy EF, Koda K. Cocktails of human anti-cancer antibodies show a synergistic effect in nude mouse tumor xenografts. *Hum Antibodies* 16(3-4):87-98. 2007

- **Kotlan B**, Stroncek DF and Marincola FM: Turning laboratory findings into therapy: a marathon goal that has to be reached! Review *Poliskie Archiwum Medycyny Wewnetrznej 119 (9): 586 – 593.* 2009.

- **Kotlan B,** Stroncek DF and Marincola FM: Intravenous immunoglobulin - based immunotherapy: An arsenal of possibilities for patients and science. Review *Immunotherapy* 1(No6): 995 – 1014 2009.

- **Kotlan B:** 15th International Conference on Human Antibodies and Hybridomas: Summary and update. *Immunotherapy* 2(No6): 761 – 765. 2010.

- **Kotlan B** and Balwith J M: Pioneering the Trail of Cancer Immunotherapy: A summary report of the 25th Annual meeting and associated programs of the International Society for Biological Therapy of Cancer (iSBTc). *Expert Reviews of Anticancer Therapy* (accepted for publication) 2011.

2/BOOKCHAPTER IN ENGLISH

-Huber Ch., Woloszczuk W., **Kotlan B.,** Bieling P. and Troppmair J., Relationship of interferon-gamma and neopterin levels during stimulation with alloantigens in vivo and in vitro, in: The biology of the Interferon Systhem eds: Stewart II W.E. and Schellekens H. Elsevier Science Publishers B.V. (Biomed. Div.) pp:467-470, 1986

- **Kotlan B.,** Gyodi E., Benczur M., Takacs K., Szabo T., Troppmair J., Onody K., Petri I., Kaiser G., Kassay M., Huber Ch. and Petranyi G. Gy., The expression of activation markers and CD25 antigen on PBL in comparison with the immune function after alloimmunization: in: Leukocyte Typing III. White Cell Differentiation Antigens ed. by: McMichael A.J., Oxford University Press, Oxford pp:534-536, 1987

- Paloczi K., Natonek K., Pocsik E., **Kotlan B**., Mihalik R., Benczur M., Demeter J.and Petranyi G. Gy., The comparison of the expression of activation antigens on peripheral blood mononuclear cells in chronic lymphocytic leukemia., in: Haematology and Blood Transfusion, Modern Trends in Human Leukemia IX. eds: R. Neth et al., Springer Verlag Berlin pp: 38-40, 1992

- Gruel N, **Kotlan B,** Zafrani B and Teillaud JL. Generation of scFv from a phage display mini-library derived from tumor-infiltrating B cells. In: RT-PCR Protocols/ Methods in Molecular Biology, ed: J O´Connel, The Humana Press, Inc, Totowa, New Jersey USA, 193: 281 – 300, 2002.

Kotlan B: Novel findings to establish a new generation of breast cancer diagnostic and therapeutic immunoconjugates. In: My Fulbright Experience / Reports of Hungarian Grantees Ed by: Nagypal Cs Published by: Bruckner H, Hungarian –American Commission for Educational ExchangeISBN: 963 216 798 8 pp: 201 – 218 (www.Fulbright.hu/book3/kotlanbeatrix.pdf) 2008.

Kotlan B and Glassy MC: Antibody phage display – a powerful technology that has quickly opened windows into the clinic. In: Antibody Phage Display 2nd ed * ISBN: 9781603273015 Ed: Aitken R. The Humana Press, Inc, Totowa, New Jersey USA, Series *Methods Mol Biol.* 562:1-15. 2009.

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5/ BOOK CHAPTERS IN HUNGARIAN

- **Kotlan B:** Role of cellular and humoral immune response in pregnancy failure.. In: Questions in highligts in reproductive immunology. Ed: Fülöp V, Semmelwess Kiadó, Budapest 2008. pp. 229 – 237.

6/ ABSTRACTS (Recent):

- Kotlan B, Ravindranath MH, Glassy MC. : Potential of immunoglobulins developed from the genome of B lymphocytes infiltrating tumor microenvironment for personalized cancer immunotherapy. J of Immunotherapy 33 (No8): p: 883 (2010)

- Kotlan B, Ravindranath MH, Banky, Raso E, GlassyMC: Novel techniques to reveal various tumor associated antigens through the natural humoral immune response. 7th International Conference on Autoimmunity. Abstract 2010

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27th January 2011.