

PD Dr Elizaveta Fasler-Kan

University Children's Hospital Bern
Department of Pediatric Surgery
Freiburgstrasse 15, CH-3010 Bern

elizaveta.fasler@insel.ch
e.fasler@unibas.ch

CURRICULUM VITAE

- Strong background in cell biology, biochemistry and immunology
- Group leader experience. Lecturer
- Supervised PhD Students, Postdoctoral fellows and lab technicians
- Proven expertise in the field of monoclonal antibodies and cytokine signaling
- Experience in paper, protocol and grant writing
- Budget management and resources

Academic Education

2016	Habilitation in the Biomedicine (University of Basel, Switzerland)	PD
1992-1994	Stanford University, School of Medicine, USA	Postdoctoral Fellow
1987	Institute of Bioorganic Chemistry (Moscow, Russia)	PhD Thesis

Professional Activities:

Since 2015	Lab head, Children's University Hospital, Dep. of Pediatric Surgery, Inselspital, Bern University Hospital, Bern, Switzerland
2013-2015	Senior scientist. Project Leader. Department of Biomedicine, University of Basel and University Hospital Basel, Basel, Switzerland
2007-2015	Senior Scientist. Project Leader. Lecturer. University of Applied Sciences Northwestern Switzerland, Institute of Chemistry and Bioanalytics, Basel, Switzerland.
2006-2007	Guest Scientist. Immuno-oncology Research Group, Institute of Surgical Research and Hospital Management, University Hospital Basel, Basel, Switzerland
2002 – 2006	Group leader. Pediatric Surgical Oncology, University Hospital Basel, Switzerland
1996-2002	Project Leader, Research associate, University Hospital Basel, Switzerland
1995 (01-11)	Visiting Scientist. Chiron Corporation, Lab. of Molecular Biology and Biochemistry. Emeryville, California, USA.
1992-1994	Postdoctoral Fellow. Stanford University School of Medicine, Department of Gastroenterology, Stanford, California, USA.

List of selected publications

Yasinska I.M, Gonçalves Silva I, Sakhnevych S., Gibbs B F, Raap U, Fasler-Kan E., Sumbayev V.V *
Biochemical mechanisms implemented by human acute myeloid leukaemia cells to suppress host immune surveillance. 2018 *Cel Mol Immunology*, doi: 10.1038/s41423-018-0047-6

***Fasler-Kan E**, Aliu N., Wunderlich K., Ketterer S., Ruggiero S., Berger S., Meyer P. A Human retina pigment epithelial cell line ARPE-19 displays mosaic karyotypes. *Heterogeneity of biological systems*, Springer Methods and protocols, 2018. *corresponding author 1745:305-314, doi: 10.1007/978-1-4939-7680-5_17

Yasinska I.M., Ceccone G., Hussain R., Siligardi G., Berger S. M, **Fasler-Kan E.**, Bardelli M., Varani L., Gibbs B. F., Calzolari L.I, Sumbayev V. V. Highly specific targeting of human acute myeloid leukaemia cells using pharmacologically active nanoconjugates. 2018 *Nanoscale* 10(13):5827-5833. doi: 10.1039/c7nr09436a

Yasinska I. M., Gonsalves Silva I. , Sakhnevych S., Rüegg L, Hussain R., Siligardi G, Fiedler W., Wellbrock J, Bardelli M., Varani L, Raap U, Berger S, Gibbs F M, ***Fasler-Kan E**, V. V. Sumbayev*. High mobility group box 1 (HMGB1) acts as an “alarmin” to promote acute myeloid leukaemia progression. *joint-corresponding authors. 2018 *Oncoimmunology*, doi.org/10.1080/2162402X.2018.1438109

Barteneva NS., Baiken Y., **Fasler-Kan E.**, Alibek K., Wang S., Maltsev N., Ponomarev E., Sautbayeva Z., Kauanova S., Moore A., Beglinger Ch., Vorobjev I.A. Extracellular vesicles in gastrointestinal cancer in conjunction with microbiota: on the border of kingdoms. 2017, *BBA, Reviews on Cancer*, 1868, p. 372-393

Gonsalves Silva I., Yasinska I., Sakhnevych S., Fiedler W., Wellbrock J., Bardelli M., Varani L., Hussain R., Siligardi G., Ceccone G., Berger SM., Ushkarjov Yu., Gibbs B.F., ***Fasler-Kan E.**, and Sumbayev V. The molecular galectin-9 secretory pathway involved in the immune escape of human acute myeloid leukemia cells. 2017 *EBiomedicine* doi: 22:44-57, doi 10.1016 /j.ebiom.2017.07.018 *joint-corresponding authors

Siegrist S., Kettiger H., **Fasler-Kan E***, Huwyler J* Selective stimulation of the JAK/STA. *Toxicology in vitro*. 42, 308-318, 2017 *joint-corresponding authors

Gonsalves Silva I., Rüegg L., Gibbs B.F., Bardelli M., Fruewirth A, Varani I., Berger SM, ***Fasler-Kan E.**, and Sumbayev V*. The immune receptor Tim-3 acts as a trafficker in a Tim-3/galectin-9 autocrine caffeine affects biological responses of human hematopoietic cells of myeloid loop in human myeloid leukemia cells. 2016 *Oncoimmunology*, Vol.5, No7, e1195535, *joint-corresponding authors

Kendall de Kruif J, Ledergerber G., Garofalo C., **Fasler-Kan E** and Kuentz M. On prilled nanotubes-in-microgel oral systems for protein delivery. 2016 *European Journal of Pharmaceutics and Biopharmaceutics* Vol 101, p. 90 -102

Fasler-Kan E*, Baiken Y., Vorobjev I., N. S. Barteneva. Analysis of nucleo-cytoplasmic shuttling by imaging cytometry. 2016 *Methods Mol Biol* 1389:127-137. doi: 10.1007/978-1-4939-3302-8. *corresponding author

Gibbs B.F., Gonsalves Silva I., Prokhorov A., Aboali M., Yasinska I., Casely-Hayford M., Berger SM, **Fasler-Kan E*** and Sumbayev V*. Caffeine affects biological responses of human hematopoietic cells of myeloid lineage via inhibition of the mTOR pathway and xanthine oxidase activity. 2015 *Oncotarget*, Vol. 5, No.30, p. 28678 -28692. *joint-corresponding authors

Prokhorov A, Gibbs BF, Bardelli M, Rüegg L, **Fasler-Kan E***, Varani L*, Sumbayev VV*. The immune receptor Tim-3 mediates activation of PI3 kinase/mTOR and HIF-1 pathways in human myeloid leukaemia cells. 2015 *Int J Biochem Cell Biol*. Vol. 59C, p. 11-20. *joint-corresponding authors

Kendall de Kruif J., **Fasler-Kan E.**, Varum F., Bravo R., Kuentz M. On prilling of hydrophilic microgels in lipid dispersions using mono-N- carboxymethyl chitosan for oral biologics delivery. 2014. *J Pharmaceutical Sciences*, Vol 103 (11), p. 3675- 3687.

- Mecklenburg I., Reznik D, **Fasler-Kan E.**, Drewe J., Beglinger Ch., Hruz P. Serum hepcidin concentrations correlate with ferritin in patients with inflammatory bowel disease. 2014. *J of Crohn's and Colitis*, Vol.8, p. 1392 - 1397
- Fasler-Kan E***, Barteneva NS, Ketterer S, Wunderlich K, Reschner A, Nurzhanova A, Flammer J, Huwyler J, Meyer P. 2013. Human cytokines activate JAK-STAT signaling pathway in porcine ocular tissue. *Xenotransplantation* 2013, Vol 20(6), p.469-80. *corresponding author
- Barteneva N., **Fasler-Kan E.**, Bernimoulin, Stern J., Ponomarev D., Duckett L, Vorobjev I. 2013. Circulating microparticles: square the circle. *BMC Cell biology* doi: 10.1186/1471-2121-14-23.
- Barteneva N., Ketman K., **Fasler-Kan E.**, Potashnikova D., Vorobjev I. 2013. Cell sorting in cancer research – diminishing degree of cell heterogeneity. *BBA Reviews on Cancer Research*, 1836, 105-122.
- Barteneva N., **Fasler-Kan E***, Vorobjev I. 2012. Imaging flow cytometry: coping with heterogeneity in biological systems. *J Histochem Cytochem*, 60, 723- 733. *co-corresponding author
- Fasler-Kan E***, Barteneva N., Ketterer S., Wunderlich K., Huwyler J., Gyax D., Flammer J. and Meyer P. 2010. Activation of the JAK-STAT intracellular pathway in human retinal pigment epithelial cell line ARPE-19. *Int J Interferon, Cytokine and Mediator Research*, 2, 127-136. *corresponding author
- Fasler-Kan E**, Suenderhauf C., Barteneva N., Poller B., Gyax D., and Huwyler J. 2010. Cytokine signaling in the human brain capillary endothelial cell line hCMEC/D3. *Brain Research*, 1354, 15-22.
- Meili-Butz S., Niermann T., **Fasler-Kan E.**, Barbosa V., Butz N., Brink M., Buser P., Zaugg Ch. 2008. Dimethyl Fumarate, a small molecule drug for Psoriasis, inhibits nuclear factor κ B and reduces myocardial infarct size in rats in vivo. *European J Pharmacology*, 586, 251-258.
- Haecker F.-M., **Fasler-Kan E.**, Manasse C., Fowler B., Hertel R., von Schweinitz D. 2006. Peritonitis in Childhood: Clinical relevance of cytokines in the peritoneal exudates. *Europ. J. Pediatr. Surg.* 16 (2), 94-99
- Fasler-Kan E.**, Wunderlich K., Flammer J., Meyer P. 2005. Activated STAT3 in Choroidal Neovascular Membranes of Patients with AMD. *Ophthalmologica*, 219, 214-222.
- Zuklys S., Balciunaite G., Agarwal A., **Fasler-Kan E.**, Palmer E., Naquet P., and Holländer G. 2000. Normal thymic function associates with expression of AIRE, the gene defective in the monogenic autosomal recessive autoimmune disease APECED. *J. Immunology*. 165, 1976-1983.
- Pansky A., de Weerth A., **Fasler-Kan E.**, Boulay J., Schulz M., Ketterer S., Selck K., Beglinger Ch., von Schrenck T., and Hildebrand P. 2000. Gastrin-releasing peptide-preferring bombesin receptors mediate growth of human renal cell carcinoma. *J. Am. Soc. Nephrol.* 11, 1409-1418.
- Pansky A., Hildebrand P., **Fasler-Kan E.**, Baselgia L., Beglinger C., and Heim M. 2000. Defective Jak-STAT signal transduction pathway in melanoma cells resistant to growth inhibition by interferon alpha. *Int. J. Cancer* 85, 720-725
- Fasler-Kan E.**, Pansky A., Wiederkehr M., Battegay M., and Heim M. 1998. Interferon alpha activates Stat5 and 6 in Daudi cells. *Eur. J. Biol. Chem.* 254, 514-519.
- Diamantis I.D., Kouroumalis E., Koulentaki M., **Fasler-Kan E.**, Schmid P., Buhler H., Gyr N., and Battegay M. 1997. Influence of Hepatitis G virus infection on liver disease. *Eur. J. Clin. Microbiol. Infect. Dis.* 16, 916-919.
- Hsu H.H., **Fasler-Kan E.**, Cheung R., Greenberg H.B. 1993. Properties of HCV structural proteins expressed in vaccinia virus using monoclonal antibodies. *Hepatology*, 18, 78
- Gel'fanov V.M., Grechaninova L.A., **Kan E.S.**, Yarov A.V., Surovoy A.Yu., Vol'pina O.M., Chepurkin A.V., and Ivanov V.T. 1991. Antigenic structure of the foot-and-mouth disease virus. VI. Functional sites of the immunodominant region of VP1 protein of the foot-and-mouth disease virus O₁K and A₂₂ strains. *Bioorg. Khim.* 17, 596-605.

Belogradov G.I., **Kan E.S.**, Iljina E.F., Muravjeva T.I., and Grinkevich V.A. 1990. A study of the OSCP antigenic structure using monoclonal antibodies. *Biol.Membrany*, 4, 301-315.

Volpina O., Surovoy A., Gelfanov V., **Kan E.**, and Ivanov V. 1988. Novel foot-and-mouth disease protective peptides: mechanism of immunostimulation. In: *Technological Advances in Vaccine Development*, ed. L. Lasky, Alan R. Liss Inc., New York, p.391-400.

Brondz B.D., **Kan E.S.**, Chervonsky A.V., Isakova V.R., Apasov S.G., and Blandova Z.K. 1987. Differential genetic requirements for in vivo and in vitro induction of T-killer and T-suppressor cells in the mutant H-2K^b system and the cross-reactivity of the T-killer clones. *Exp. Clin. Immunogenet.* 4, 211-221.

Kan E.S., Chervonsky A.V., Isakova V.R., Apasov S.G., Brondz B.D., Gabrielyan M.S., and Blandova Z.K. 1987. In vivo induction of cytotoxic T lymphocytes (CTL) in H-2K^{bm} mutant mice and cross-reactivity of narrow-specific CTL clones. *Genetics*, 23, 45-54.

Kan E.S., Chervonskii A.V., Isakova V.R., Brondz B.D., and Blandova Z.K. 1987. In vivo induction of specific suppressor T cells in H-2K^{bm} mutant mice. *Bull. Exp. Biol. Med.* 102, 1102-1105.

Kan E.S., Chervonsky A.V., Brondz B.D., Isakova V.R., Apasov S.G., and Blandova Z.K. 1986. Comparative study of immunological recognition of the wild type H-2K^b membrane antigen by T killers and T suppressors from mutant strains of mice. *Biol Membrany*, 3, 1232-1240.