SCIENTIFIC PUBLICATIONS
by Serhiy Souchelnytskyi, PhD, Professor

1. Bibliometric parameters

Number of publications is 128: 89 experimental articles, 34 reviews, and 5 patents have been published or accepted by October, 2017.
Sum of the times cited – 5,877; H-index is 33.
Names in PubMed: Souchelnytskyi, Souchelnytskiy, Sushelnitskii.

Publications are in general biology journals (e.g. Current Biology (Cell family), EMBO J., FASEB J., Mol. Biol. Cell, Mol. Cell. Biol.), cancer (e.g. Oncogene, Int. J. of Cancer, Exp. Oncol.), biochemistry (e.g. J. Biol. Chem., Biochemistry) and proteomics (e.g. Proteomics, Proteomics Clinical Appl., J. Prot. Res., Cancer Gen. Proteomics, Expert Rev. Proteomics) fields.
Patents are for markers for early detection of breast and ovarian cancers, for development of drugs addressing TGFbeta signaling in diseases, with emphasis on anti-cancer treatment, and on new therapies of ovarian cancer.

2. EXPERIMENTAL PAPERS (89):

1. Kwiecińska A., Porwit A., Souchelnytskyi N., Kaufeldt A., Larsson C., Bajalica-Lagercrantz S., **Souchelnytskyi S.** (2017) Proteomic profiling of Diffuse Large B-cell Lymphomas. ***Pathobiology***, submitted.
2. Kolakowska J, **Souchelnytskyi** S, Saini RKR, Franczak A. (2017) Proteomic analysis of the endometrium during early pregnancy in the domestic pig. ***Reprod Fertil Dev***. 2017 Apr 18. doi: 10.1071/RD16435.
3. Myronovkij S, Negrych N, Nehrych T, Tkachenko V, **Souchelnytskyi** S, Stoika R, Kit Y. (2016) Identification of SER-PRO-CYS Peptide in Blood Serum of Multiple Sclerosis Patients. ***Protein Pept Lett.*** 2016;23(9):808-811.
4. Myronovkij S, Negrych N, Nehrych T, Redowicz MJ, **Souchelnytskyi** S, Stoika R, Kit Y. (2015) Identification of a 48 kDa form of unconventional myosin 1c in blood serum of patients with autoimmune diseases. ***Biochem Biophys Rep.*** 2015 Dec 3;5:175-179. doi: 10.1016/j.bbrep.2015.12.001.
5. Kodura MA, **Souchelnytskyi** S. (2015) Breast carcinoma metastasis suppressor gene 1 (BRMS1): update on its role as the suppressor of cancer metastases. ***Cancer Metastasis Rev***. 2015 Dec;34(4):611-8. doi: 10.1007/s10555-015-9583-z.
6. Saini R.K., Attarha S., da Silva Santos C., Kolakowska J., Funa K., **Souchelnytskyi S.** (2014) Proteomics of dedifferentiation of SK-N-BE2 neuroblastoma cells. ***Biochemical and Biophysical Research Communications***, Nov 7;454(1):202-9. doi: 10.1016/j.bbrc.2014.10.065.
7. **Souchelnytskyi S.** (2014) Functional Molecular Diagnostic for anti-cancer treatment. ***ResearchGate,*** Doi:10.13140/2.1.1704.0645.
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9. Mints M., **Souchelnytskyi S.** (2014) Bone Morphogenetic Protein Signaling Modulates Tamoxifen and SB431542 action on Invasive Breast Cancer Cells. Proteomics, under revision.
10. da Silva Santos C., Attarha S., Saini RK., Boaventura V., Costa J., Barral-Netto M., Brodskyn C.I., **Souchelnytskyi S.** (2014) Proteome profiling of biopsies from Human Cutaneous Leishmaniasis patients showed up-regulation of proteins related to the pathogenesis of the lesions. ***Journal of Investigative Dermatology***, Sep 10. doi: 10.1038/jid.2014.396 .

11. Mints M., **Souchelnytskyi S.** (2014) Proliferation Response of Human Breast Cancer Cells to Combinatorial Treatments with EGF, TGFbeta, 17alpha-oestradiol, Iressa, SB431542 and Tamoxifen. ***Experimental Oncology***, 36(2), 67-71.
12. Attarha S., Andersson S., Mints M., **Souchelnytskyi S.** (2014) Mammalian Sterile-like 1 kinase (MST1) inhibits TGFbeta and EGF–dependent regulation of migration and proliferation of HEC-1-A endometrial cancer cells. ***Int. J. Oncology***, 45(2), 853-860.
13. Attarha S., Andersson S., Mints M., **Souchelnytskyi S.** (2014) PKN1 modulates TGFbeta and EGF signaling in HEC-1-A endometrial cancer cell line. ***OncoTargets***, 7, 1397-1408, http://dx.doi.org/10.2147/OTT.S65051 .
14. Zakharchenko O., Cojoc M., Dubrovska A., **Souchelnytskyi** S. (2013) A role of TGFß1 dependent 14-3-3σ phosphorylation at Ser69 and Ser74 in the regulation of gene transcription, stemness and radioresistance. ***PLoS ONE***, 8(5):e65163. doi: 10.1371/journal.pone.0065163.
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27. Stasyk T., Lutsik-Kordovsky M., Wernstedt C., Antonyuk V., Klyuchivska O., **Souchelnytskyi S.**, Hellman U., Stoika R. (2010) A new highly toxic protein isolated from the death cap Amanita phalloides is an L-amino acid oxidase. ***FEBS J.*** 277(5), 1260-1269.
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3. PATENTS (5):

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2. Lomnytska M., Dubrovska A., Hellman U., Volodko N., **Souchelnytskyi S**. (2007) Protein markers for the diagnosis and prognosis of ovarian and breast cancer. US 11/829,360, July, 27, 2007.
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5. Yakymovych I., Heldin C-H., **Souchelnytskyi S.** (2004) Development of specific inhibitors of TGFbeta type I receptor kinase. August, 2004.

4. The ten most important publications

1..New modality of diagnostic for personalization of cancer treatment, Functional Molecular Diagnostic (FMDx). FMDx has been used to help in treatment of cancer patients in Sweden and abroad (Germany, the UK, Poland and Ukraine).

Souchelnytskyi S. (2014) Functional Molecular Diagnostic for personalization of cancer treatment. ResearchGate, Doi: 10.13140/2.1.1704.0645

2. New modality of personalization of anti-cancer treatment; this approach is used now in clinics (2 papers for two types of cancer):

Attarha S., Mints M., Andersson S., **Souchelnytskyi S.** (2013) Individualized proteome profiling of human endometrial tumours improves detection of new prognostic markers. **Br. J. Cancer**, doi: 10.1038/bjc2013.359.

Zakharchenko O., Greenwood C., Lewandowska A., Hellman U., Alldridge L., **Souchelnytskyi S.** (2011) Meta-data analysis as a strategy to evaluate individual and common features of proteome changes in breast cancer. ***Cancer Genomics and Proteomics***, 8(1), 1-14.

3. New mechanisms of TGFbeta signalling:

Lin K.W., Yakymovych I., Jia M., Yakymovych M., **Souchelnytskyi S.** (2010) Phosphorylation of eukaryotic elongation factor eEF1A1 at Ser300 by type I transforming growth factor-beta receptor results in inhibition of mRNA translation. ***Current Biology***, 20(18), 1615-1625. Top 10 downloads by the Cell Press.

4. Development of novel diagnostic proteome signature; it is now used in the clinic:

Jia M., Souchelnytskyi N., Hellman U., O'Hare M. Jat P.S., **Souchelnytskyi S.** (2010) Proteome profiling of immortalization-to-senescence transition of human breast epithelial cells identified MAP2K3 as a senescence-promoting protein which is down-regulated in human breast cancer. ***Proteomics Clinical Applications***, 4, 816-828.

5. Successful application of systems biology to exploration of the systemic signalling by TGFbeta:

Bhaskaran N., **Souchelnytskyi S.** (2008) Systemic analysis of TGFbeta proteomics revealed involvement of Plag1/CNK1/ RASSF1A/Src network in TGFbeta1-dependent activation of Erk1/2 and cell proliferation. ***Proteomics***, 8 (21), 4507-4520.

6. First phosphoproteomics and interactom studies of TGFbeta signalling:
Stasyk T., Dubrovska A., Lomnytska M., Wernstedt C., Heldin C.-H., Hellman U., **Souchelnytskyi S.** (2005) Phosphoproteome profiling of transforming growth factor-beta signalling: abrogation of TGFbeta1-dependent phosphorylation of TFII-I enhances cooperation of TFII-I and Smad3 in transcription. ***Mol. Biol. Cell***, doi10.1091/mbc, 16, 4765-4780.
Conrotto P., Yakymovych I., Yakymovych M., **Souchelnytskyi S**. (2007) Interactome of transforming growth factor-beta type I receptor (TbetaRI): inhibition of TGFbeta signaling by Epac1. ***J. Proteome Res***., 5, 287-297.
7. Discovery of markers for early detection of breast and ovarian cancer. These markers are now in clinical development:
Lomnytska M., Dubrovska A., Hellman U., Volodko N., **Souchelnytskyi S.** (2005) Increased expression of cSHMT, Tbx3 and utrophin in plasma of ovarian and breast cancer patients. ***Int. J. Cancer***, doi10.1002/ijc.21332, in paper: (2006) 118, 412-421.
8. First report of the cross-talk between BRCA1 and TGFbeta signalling:
Dubrovska A., Kanamoto T., Lomnytska M., Heldin C.-H., Volodko N., **Souchelnytskyi S.** (2005) TGFbeta/Smad3 counteracts BRCA1-dependent repair of DNA damage. ***Oncogene***, 21, 2289-2297.
9. First expression proteomics study of TGFbeta signalling, which showed a new signalling mode of TGFbeta to regulation of DNA repair:
Kanamoto T., Hellman U., Heldin C.-H., **Souchelnytskyi S**. (2002) Functional proteomics of transforming growth factor-β1 stimulated Mv1Lu cells; Rad51 as a target of TGFbeta1-dependent regulation of DNA repair. ***EMBO J.,*** 21(5), 1219-1230.
10. Discover of a new signalling mechanisms of TGFbeta, with implication to tumorigenesis:
Yakymovych I., ten Dijke P., Heldin C.-H., **Souchelnytskyi S**. (2001) Regulation of Smad signaling by protein kinase C. ***The FASEB Journal***, 10.1096/fj.00-0474fje, 15 (3), 553-555

5. REVIEWS (34):

1. **Souchelnytskyi S**., Souchelnytskyi N. (2017) Current trends of personalized cancer medicine: focus on participants and technologies. invited review.
2. Krishnankutty R, Bhat AA, Azmi AS, **Souchelnytskyi S**, Uddin S, et al. (2017) An Overview of Proteomics Techniques and its Application as a Tool in Biomarker and Drug Discovery. ***J Proteomics Enzymol*** 6:1. doi: 10.4172/2470-1289.1000129
3. **Souchelnytskyi S.** (2014) Implementation Science – "new kid on the block" and what to expect from it. ResearchGate, comment, doi: 10.13140/2.1.4768.8969
4. Mäbert K., Cojoc M., Peitzsch C., Kurth I., **Souchelnytskyi S.,** Dubrovska A. (2014) Cancer biomarker discovery: current status and future perspectives. ***Int. J. Radiation Biology***, 12, 1-19.
5. **Souchelnytskyi S.** (2013) Individualization of cancer treatment: successes and challenges. In: **Biochemistry and Biotechnology for Modern Medicine**, Kyiv, Ed. S. Komisarenko, Publishing House Moskalenko, p. 178-201, invited chapter.
6. Calone I., **Souchelnytskyi S.** (2012) Therapeutic approaches to TGFbeta signaling in cancer. ***Exp. Oncol.*** 34, 1, 9-16.
7. **Souchelnytskyi S.** (2011) Current status and challenges of personalized treatment of cancer: View inspired by the workshop. ***Exp. Oncol.,*** 33, 3, 166-169.
8. Jia M., **Souchelnytstkyi S.** (2011) Comments on the cross-talk between TGFb and EGF. Exp. Oncol., 33, 3, 170-173.
9. Attarha S., Mints M., Andersson S., **Souchelnytskyi S.** (2011) Endometrial cancer and application of proteomics. ***Exp. Oncol***., 33, 3, 174-177.

10. Mints M., **Souchelnytskyi S.** (2011) Proteomics strategy for detecting circulating tumor cell surface antigens. ***Exp. Oncol.,*** 33, 3, 193-195.
11. Lin K.W., **Souchelnytskyi S**. (2011) Translational control of TGFbeta signaling: phosphorylation of eEF1A1 by TbetaR-I inhibits protein synthesis. ***Small GTPases,*** 2:2, 104-108.
12. Jia M., Lin K.W., Souchelnytskyi S (2011) Phosphorylation of proteins: importance, detection and identification of phosphorylation sites. in: **Proteomics**, book 2, book chapter, INTECH,ISBN 979-953-307-693-4, in press.
13. Lin K.W., Jia M., Souchelnytskyi S. (2011) Application of bioinformatics tools in gel-based proteomics. in: **Proteomics**, book 2, book chapter, ISBN 979-953-307-693-4, INTECH, in press.
14. **Souchelnytskyi S**., Sam Hanash (2009) Focus on Breast Cancer Proteomics (p 5) ***Proteomics Clinical Applications***, 3 (1), p 5, Special Issue: BREAST CANCER PROTEOMICS, Issue Edited by Serhiy Souchelnytskyi, Sam Hanash
Published Online: Jan 2 2009 4:16AM DOI: 10.1002/prca.200990002
15. Hanash S., **Souchelnytskyi S.** (2008) A window on the mammary gland proteome. ***J. Proteome Res.,*** 7(4), 1368, Special Thematic Issue: Mammary Gland and Breast Cancer Proteomics. Edited by Sam Hanash and Serhiy Souchelnytskyi.
16. Conrotto P, **Souchelnytskyi S.** (2008) Proteomic approaches in biological and medical sciences: principles and applications. ***Exp Oncol.*** 30(3), 171-180.
17. **Souchelnytskyi S.,** Alldridge L. (2008) Mammary Gland Proteome Initiative workshop, Report. ***Proteomics Clinical Applications***, 2, 8-10.
18. Lomnytska M., **Souchelnytskyi S.** (2007) Markers of Breast and Gynaecologic Malignancies: the Clinical Approach of Proteomics-based Studies. ***Proteomics Clinical Applications***, 9, 1090-1101.
19. **Souchelnytskyi S.** (2008) Integration of proteomics and systems biology, Ed. Randeep Rakwal In: Plant proteomics: technologies, strategies, and applications, John Willeys and Sons, review solicited by the Editor.
20. **Souchelnytskyi S.,** Lomnytska M., Dubrovska A., Hellman U., Volodko N. (2006) Proteomics success story: Towards early detection of breast and ovarian cancer: plasma proteomics as a tool to find novel markers. ***Proteomics***, 1-2, 69-71.
21. **Souchelnytskyi S**. (2007) Proteomics analysis of TGFbeta superfamily members. In: **Cancer Treatment and Therapy**, Ed. Sonya Jakowlev, The Humana Press, in press.
22. **Souchelnytskyi S**. (2005) Proteomics of TGFbeta signalling and its impact on breast cancer. ***Expert Rev. Proteomics***, 2, 925-935.
23. **Souchelnytskyi S.** (2005) Bridging proteomics and systems biology: what are the roads to be travelled? ***Proteomics***, doi 10.1002/pmic.200500135, 5, 4123-4137.
24. **Souchelnytskyi S.** (2005) Proteomics in breast cancer. In: ***Genomics and proteomics in oncology***, Nova Science Publishers, New York, 147-164 .
25. Moustakas A., **Souchelnytskyi S.,** Heldin C.-H. (2005) Receptor serine/threonine kinases. ***Cell Biology Encyclopedia***.
26. **Souchelnytskyi S**. (2002) Proteomics in studies of signal transduction in human breast cancer cells. ***J. Mammary Gland Biology and Neoplasia***, 7, 359-371.
27. **Souchelnytskyi S.** (2002) TGF-beta signalling and its role in cancer. ***Exp. Oncology***, 24(1), 3-12.
28. **Souchelnytskyi S.**, Moustakas A., Heldin C-H. (2002) TGFβ signalling from a 3-dimensional perspective: insight into selection of partners. ***Trends in Cell Biology***, 12(7), 304-307.
29. Moustakas A., **Souchelnytskyi S**., Heldin C.-H. (2001) Smad regulation in TGF-β signal transduction. ***J. Cell Sc.***, 114 (24), 4359-4369.
30. **Souchelnytskyi S.**, Rönnstrand L., Heldin C.-H., ten Dijke P. (2001) Phosphorylation of Smad signalling proteins by receptor serine/threonine kinases. ***Current Protocols in Molecular Biology***, Methods Mol Biol., 124, pp.107-20.

31. Heldin C.-H., Moustakas A., **Souchelnytskyi S**., Itoh S. and ten Dijke P. (2001) Mechanism of signal transduction of members of the TGFβ family. *In*: ***TGF-β and related cytokines in inflammation research***. Breit S. N. and Wahl S., eds. Birkhauser Verlag AG, Basel, pp.11-40.
32. Feige J.J., Vilgrain I., Brand C., Bailly S., **Souchelnitskiy S.** (1998) Fine tuning of adrenocortical functions by locally produced growth factors. ***Mol. Endocrinology***, 158, 7-19.
33. Feige J.-J., Quirin N., **Souchelnytskyi S.** (1996) TGFβ, un peptide biologique sous contrôle: Formes latentes et mechanismes d'activation. ***Medicine et Science***, 12, 929-939.
34. Miyazono K., ten Dijke P., **Souchelnytskyi S.**, Nakao A., Imamura T., Hanai J.-I., Kawabata M., Heldin C.-H., (1997) Transforming growth factor-β receptors and signal transduction. *In Serono Symposia on "Inhibin, activin and follistatin; recent advances and future views", Aono T., Sugino, H., and Vale, W.W. eds*., Springer-Verlag New York, pp.277-284.

6. PRESENTATIONS IN MASS MEDIA:

1. Since 2005, there is a number of presentations and interviews in international and Swedish national newspapers, TV and radio. On the internet, it is >400 references to the marker project. The subject is early detection of breast and ovarian cancer.
2. BBC interview about my activities in management of breast cancer. This interview was broadcasted few times during the spring 2010.
3. Profiling looms large in cancer research (2010) Interview for GENBIO about DRNets. Genetic Engineering and Biotechnology News, v.30 (17), October, 1, pages 26-29.
4. Interview for Amgen Foundation, November, 2010.
5. Interview for Biotechniques.com, January 2011, http://www.biotechniques.com/news/Rock-paper-scissors-the-hope-for-cancer-treatments/biotechniques-308028.html
6. Article in Svenska Dagbladet (national Swedish newspaper) about personalization of cancer treatment. http://www.svd.se/opinion/brannpunkt/ge-cancersjuka-individuell-vard_8436494.svd . ”Ge svenska patienter tillgång till individanpassad cancerbehandling”.