

List of scientific publications

CSI Dr. Sanda BOCA-FARCAU

Books/Chapters

- S. Boca, S. Astilean, *Nanomedicine in cancer chemotherapy*, book chapter, *Nanopharmacology in leukemia chemotherapy*, Editura Eikon/ Scoala Ardeleana ISBN 978-606-711-304-4-5, **first author**
- T. Simon, S. Suarasan, S. Boca, S. Astilean, *Conjugation of gold nanoparticles to antileukemic drugs*, *Nanopharmacology in leukemia chemotherapy*, Ed Eikon/ Scoala Ardeleana ISBN 978-606-711-304-4-5, (2015)
- B. Petrushev, I. Frinc, D. Dima, C. Berce, S. Boca et al. *Nanopharmacology for acute myeloid leukemia*, *Nanopharmacology in leukemia chemotherapy*, Ed Eikon/ Scoala Ardeleana ISBN 978-606-711-304-4-5, (2015)
- I. Frinc, D. Dima, C. Berce, S. Boca et al. *Nanopharmacology in chronic lymphocytic leukemia*, *Nanopharmacology in leukemia chemotherapy*, Ed Eikon/ Scoala Ardeleana ISBN 978-606-711-304-4-5, (2015)

Articles

- I.M. Handrea-Dragan, I. Botiz, A.S. Tatar, S. Boca, *Patterning at the micro/nano-scale: polymeric scaffolds for medical diagnostic and cell-surface interaction applications*, *Colloids and Surfaces B: Biointerfaces*, (2022), DOI:10.1016/j.colsurfb.2022.112730, **IF=5.9, corresponding author**
- R. Tudureanu, I.M. Handrea-Dragan, S. Boca, I. Botiz, *Insight and Recent Advances into the Role of Topography on the Cell Differentiation and Proliferation on Biopolymeric Surfaces*, *Int. J. Mol. Sci.* (2022) 23(14),7731, **IF=6.2**
- A.S. Tatar, C. Farcau, A. Vulpoi, S. Boca, S. Astilean, *Development and evaluation of a gold nanourchin (GNU)-based sandwich architecture for SERS immunosensing in liquid*, *Spectrochim. Acta A Mol. Biomol. Spectrosc.*, 273 (2022) 121069, **IF=4.8, corresponding author**
- A. M. M. Gherman, S. Boca, A. Vulpoi, M. V. Cristea, C. Farcau, V. Tosa, *Plasmonic photothermal heating of gold nanostars in a real-size container: multiscale modelling and experimental study*, *Nanotechnology* 31 (2020) 125701, **IF=3.5**.
- S. Boca, D. Gulei, A.-A. Zimta, A. Onaciu, L. Magdo, A. B. Tigu, C. Ionescu, A. Irimie, R. Buiga, I. Berindan-Neagoe, *Nanoscale delivery systems for microRNAs in cancer therapy*, *Cellular and Molecular Life* 77 (2020) 1059–1086, **IF=6.5, first author**
- A.S. Tatar, M. A. Jurj, C. Tomuleasa, A. Florea, I. Berindan-Neagoe, D. Cialla-May, J. Popp, S. Astilean, S. Boca, *CD19-targeted, Raman tagged Gold Nanourchins as theranostic agents against Acute Lymphoblastic Leukemia*, *Colloids and Surfaces B: Biointerfaces* 184 (2019) 110478, **IF=5.2 corresponding author**
- T.Nagy-Simon, A. Tatar, A-M. Craciun, A. Vulpoi, M-A. Jurj, A. Florea, C. Tomuleasa, I. Berindan-Neagoe, S. Astilean, S. Boca, *Antibody conjugated, Raman tagged hollow gold nanospheres for specific targeting and multimodal Dark Field/ SERS/ Two Photon-FLIM imaging of CD19(+) B lymphoblasts*, *ACS Applied Materials and Interfaces* 9 (2017) 21155-21168, **IF=7.1, corresponding author**
- S. Boca, C. Berce, A. Jurj, B. Petrushev, L. Pop, G.-A. Gafencu, S. Selicean, V. Moisoiu, D. Temian, W.-T. Micu, S. Astilean, C. Braicu, C. Tomuleasa, I. Berindan-Neagoe, *Ruxolitinib-conjugated gold nanoparticles for topical administration: An alternative for treating alopecia?* *Medical Hypotheses* 109 (2017) 42-45, **first author**.
- M. M. Dzagli, K. K. Sossoe, K. S. Gadedjisso-Tossou, M. A. Mohou, S. Boca, S. Astilean, J. Zoueu, *Spectroscopic Studies on Extracts of Moringa Oleifera Leaves for Biosensing: Adsorption of Gold Nanospheres on Chloroplasts*, *ISESCO JOURNAL of Science and Technology*, Vol.12 No 22 (2016)
- A. Tatar, T. Nagy Simon, C. Tomuleasa, S. Boca, S. Astilean, *Nanomedicine approaches in acute lymphoblastic leukemia*, *J. Controlled Release* 238 (2016) 123-138. , **IF=7.4, corresponding author**
- S. Boca, C. Farcau, M. Baia, S. Astilean, *Metanephrine neuroendocrine tumor marker detection by SERS using Au nanoparticle/Au film sandwich architecture*, *Biomed. Microdevices* 18 (2016) 12:1-10., **IF=2.8, first author**

- Petrushev B, Boca S, Simon T, Berce C, Frinc I, Dima D, Selicean S, Gafencu GA, Tanase A, Zdrenghia M, Florea A, Suarasan S, Dima L, Stanciu R, Jurj A, Buzoianu A, Cucuianu A, Astilean S, Irimie A, Tomuleasa C, Berindan-Neagoe I, *Gold nanoparticles enhance the effect of tyrosine kinase inhibitors in acute myeloid leukemia therapy*, **International Journal of Nanomedicine** 11 (2016) 641/660. **IF=4.3, first co-author**
- Mihaela Aldea, Ioan Alexandru Florian, Gabriel Kacso, Lucian Craciun, Sanda Boca, Olga Soritau, Ioan Stefan Florian, *Nanoparticles for Targeting Intratumoral Hypoxia: Exploiting a Potential Weakness of Glioblastoma*, **Pharmaceutical Research** 33 (2016) 2059–2077, **IF=3.2**
- S. Boca, C. Lucan, I. Frinc, B. Petrushev, T. Simon, C. Berce et al., *Gold Nanoparticles Conjugated with Rituximab for the Treatment of Chronic Lymphocytic Leukemia*, **FARMACIA** 64 (2016) 688-698. , **IF=1.14 , first author**
- N.Djaker, S. Sultana, D.Issaad, S. Boca, H. Moustauoui, J.Spadavecchia, A. Medjahed, M. Bouafia, S. Astilean, M. Lamy de la Chapelle, *Spherical and Flower-Shaped Gold Nanoparticles Characterization by Scattering Correlation Spectroscopy*, **J. Phys. Chem. C** 120 (2016) 11700–11708. **IF=4.5**
- C. Berce, C. Lucan, B. Petrushev, S. Boca, M. Miclean, O. Sarpataki, S. Astilean, A. Buzoianu, C. Tomuleasa, A. Bojan, *In vivo assessment of bone marrow toxicity by gold nanoparticle-based bioconjugates in Crl:CD1(ICR) mice*, **Int J Nanomedicine** 11 (2016) 4261–4273. **IF=4.3**
- Sorina Suarasan, Timea Simon, Sanda Boca, Ciprian Tomuleasa, Simion Astilean, *Gelatin 1 -coated Gold Nanoparticles as Carriers of FLT3 Inhibitors for Acute Myeloid Leukemia Treatment*, **Chem Biol Drug Des**, (2016) **IF=2.4**
- C. Farcau, R. A. L. Vallee, S. Boca, S. Astilean, *Polarized SERS on linear arrays of silver half-shells: SERS re-radiation modulated by local density of optical states*, **J. Opt.** 17 (2015) 114007. **IF=2**
- T. Simon, C. Tomuleasa, A. Bojan, I. Berindan-Neagoe, S. Boca, S. Astilean, *Design of FLT3 Inhibitor - Gold Nanoparticle Conjugates as Potential Therapeutic Agents for the Treatment of Acute Myeloid Leukemia*, **Nanoscale Res. Lett.** 10 (2015) 466. **IF=2.7**
- Sadequa Sultana, Nadia Djaker, Sanda Boca-Farcau, Milena Salerno, Nathalie Charnaux, Simion Astilean, Hanna Hlawaty, de la Chapelle Marc Lamy, *Comparative toxicity evaluation of flower-shaped and spherical gold nanoparticles on human endothelial cells*, **Nanotechnology**, January 2015, Article reference: NANO-105156.R1 **IF=3.6, cover article**
- S. Boca, Monica Potara, Timea Simon, Aurelie Juhem, Patrice Baldeck, Simion Astilean, *Folic Acid-Conjugated, SERS-Labeled Silver Nanotriangles for Multimodal Detection and Targeted Photothermal Treatment on Human Ovarian Cancer Cells*, **Molecular Pharmaceutics** 11 (2014) 391-9. **IF=4.5, first author**
- C. Leordean, M. Potara, S. Boca-Farcau, A. Vulpoi, S. Astilean, C. Farcau, *Multiscale electromagnetic SERS enhancement on self-assembled micropatterned gold nanoparticle films*, **J. Raman Spectrosc.** 45 (2014) 627. **IF=2.5**
- T. Simon, S. Boca, A. M. Gabudean, P. Baldeck, S. Astilean, *LED-activated methylene blue-loaded Pluronic-nanogold hybrids for in vitro photodynamic therapy*, **J Biophotonics** 6 (2013) 950-959. **IF=3**
- M. Potara, S. Boca, E. Licarete, A. Damert, M.-C. Alupej, M. T. Chiriac, O. Popescu, U. Schmidt, S. Astilean, *Chitosan-coated triangular silver nanoparticles as a novel class of biocompatible, highly sensitive plasmonic platforms for intracellular SERS sensing and imaging*, **Nanoscale** 5 (2013) 6013-6022. **IF=6.2**
- T. Simon, S. Boca, D. Biro, P. Baldeck, S. Astilean, *Gold–Pluronic core–shell nanoparticles: synthesis, characterization and biological evaluation*, **J Nanopart Res** 15 (2013) 1578. **IF=2.1**
- C. Farcau, M. Potara, C. Leordean, S. Boca, S. Astilean, *Reliable plasmonic substrates for bioanalytical SERS applications easily prepared by convective assembly of gold nanocolloids*, **Analyst** 138 (2013) 546-552. **IF =3.9**
- T. Simon, S. Boca, S. Astilean, *Pluronic-Nanogold hybrids: Synthesis and tagging with photosensitizing molecules*, **Colloids Surf. B** 97 (2012) 77-83. **IF =3.5**
- S. Boca, D. Rugina, A. Pinteau, N. Leopold, S. Astilean, *Designing Gold Nanoparticle-Ensembles as Surface Enhanced Raman Scattering Tags inside Human Retinal Cells*, **Journal of Nanotechnology** 2012 (2012) Article ID 961216 (10pp). Special Issue dedicated to SERS, **first author**

- S. Boca, M. Potara, A. M. Gabudean, A. Juhem, P. Baldeck, S. Astilean, *Chitosan-coated triangular silver nanoparticles as a novel class of biocompatible, highly effective photothermal transducers for in vitro cancer cell therapy*, **Cancer Letters** 311 (2011) 131-140. **IF =4.2, first author, highlighted on the Global Medical Discovery**
- S. Boca, D. Rugina, A. Pintea, L. Barbu, S. Astilean, *Flower-shaped gold nanoparticles: synthesis, characterization and their application as SERS-active tags inside living cells*, **Nanotechnology** 22 (2011) **IF= 3.8, first author, cover article**
- S. Boca, M. Potara, F. Toderas, O. Stephan, P. L. Baldeck, S. Astilean, *Uptake and biological effects of chitosan-capped gold nanoparticles on Chinese Hamster Ovary cells*, **Mater. Sci. Eng., C** 31 (2011) 184-189. **IF= 2.4, first author**
- S. Boca, S. Astilean, *Detoxification of gold nanorods by conjugation with thiolated poly(ethylene glycol) and their assessment as SERS-active carriers of Raman tags*, **Nanotechnology** 21 (2010) 235601 (8pp) **IF= 3.8, first author**
- S. Boca, C. Farcau, S. Astilean, *The study of raman enhancement efficiency as function of nanoparticle size and shape*, **Nucl. Instrum. Methods Phys. Res., Sect. B** 267 (2009) 406-410. **IF=1.1, first author**
- S. Boca, Mickael Four, Adeline Bonne, Boudewijn van der Sanden, Simion Astilean, Patrice L. Baldeck, Gilles Lemerrier, *An ethylene-glycol decorated ruthenium(II) complex for two-photon photodynamic therapy*, **Chem. Commun.** 30 (2009) 4590-4592. **IF=6.7, first author**
- Francois K. Guedje, Sanda Boca, Monica Potara, Arina Modrea, Simion Astilean, *Finite difference time domain (FDTD) calculations of surface plasmon resonance of different size and shape metallic nanoparticles*, **Studia Universitatis Babeş Bolyai, Physica**, 1 (2009) 39.
- M.M. Dzagli, S. Boca, M. A. Mohou, S. Astilean, *Formation of Gold Nanoparticle Aggregates by Chemical Cross-Linking: UV-Visible Spectroscopy and Surface-Enhanced Raman Scattering Studies*, **Studia Universitatis Babeş Bolyai, Physica**, 2 (2009) 15.
- S. Boca, I. Lupan, O. Popescu, S. Astilean, *Colorimetric detection of single-and double stranded DNA on gold nanoparticles*, **Studia Universitatis Babeş Bolyai, Physica**, 1 (2008) 87. **first author**
- F. Toderas, S. Boca, M. Baia, L. Baia, D. Maniu, S. Astilean, S. Simon, *Self-assembled multilayers of gold nanoparticles as versatile platforms for molecular sensing by Fourier transform-surface enhanced scattering (FT-SERS) and surface enhanced infrared absorption (SEIRA)*, **J. Optoelectron. Adv. Mater.** 9 (2007) 625-628. **IF=0.8**