

## LUCRĂRI RELEVANTE – VALENTIN-FLORIAN RAUCA

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### LUCRĂRI - AUTOR CORESPONDENT

Giorgiana Negrea, **Valentin-Florian Rauca\***, Marta Szilvia Meszaros, Laura Patras, Lavinia Luput, Emilia Licarete, Vlad-Alexandru Toma, Alina Porfire, Dana Muntean, Alina Sesarman, Manuela Banciu. Active Tumor-Targeting Nano-formulations Containing Simvastatin and Doxorubicin Inhibit Melanoma Growth and Angiogenesis. *Front. Pharmacol.*, 05 April 2022 | <https://doi.org/10.3389/fphar.2022.870347> (IF<sub>2020</sub> = 5.81; AIS<sub>2020</sub> = 1.13; Q1)

### LUCRĂRI - PRIM AUTOR

**Valentin-Florian Rauca**, Laura Patras, Lavinia Luput, Emilia Licarete, Vlad-Alexandru Toma, Alina Porfire, Augustin Catalin Mot, Elena Rakosy-Tican, Alina Sesarman Manuela Banciu. Remodeling tumor microenvironment by liposomal codelivery of DMXAA and simvastatin inhibits malignant melanoma progression. *Sci Rep.* 2021 Nov 11;11(1):22102. doi: 10.1038/s41598-021-01284-5. (IF<sub>2020</sub> = 4.38; AIS<sub>2020</sub> = 1.28; Q1)

**Valentin-Florian Rauca**, Laurian Vlase, Tibor Casian, Alina Sesarman, Ana-Maria Gheldiu, Andrei Mocan, Manuela Banciu, Anca Toiu. Biologically active *Ajuga* species extracts modulate supportive processes for cancer cell development. *Frontiers in Pharmacology* 2019; 10:334. doi: 10.3389/fphar.2019.00334. (IF<sub>2020</sub> = 5.81; AIS<sub>2020</sub> = 1.13; Q1)

**Valentin-Florian Rauca**, Emilia Licarete, Lavinia Luput, Alina Sesarman, Laura Ioana Patras, Paul Bulzu, Elena Rakosy-Tican, Manuela Banciu. Combination therapy of simvastatin and 5, 6-dimethylxanthenone-4-acetic acid synergistically suppresses the aggressiveness of B16.F10 melanoma cells. *PLoS ONE* 2018 13(8):e0202827. <https://doi.org/10.1371/journal.pone.0202827>. (IF<sub>2020</sub> = 3.24; AIS<sub>2020</sub> = 1.01; Q2)

### LUCRĂRI CO-AUTOR

Cristina Ioana Barbălată, Alina Silvia Porfire\*, Alina Sesarman, **Valentin-Florian Rauca**, Manuela Banciu, Dana Muntean, Rareș Știufiuc, Alin Moldovan, Cristian Moldovan, Ioan Tomuță. A Screening Study for the Development of Simvastatin-Doxorubicin Liposomes, a Co-Formulation with Future Perspectives in Colon Cancer Therapy. *Pharmaceutics*. 2021 Oct; 13(10): 1526. Published online 2021 Sep 22. doi: 10.3390/pharmaceutics13101526 (IF<sub>2020</sub> = 6.32; AIS<sub>2020</sub> = 0.90; Q1)

Laura Patras, Aura Elena Ionescu, Cristian Munteanu, Renata Hajdu, Andreea Kosa, Alina Porfire, Emilia Licarete, **Valentin Florian Rauca**, Alina Sesarman, Lavinia Luput, Paul Bulzu, Paul Chiroi, Rares Andrei Tranca, Marta-Szilvia Meszaros, Giorgiana Negrea, Lucian Barbu-Tudoran, Monica Potara, Stefan Szedlacsek, Manuela Banciu. Trojan horse treatment based on PEG-coated extracellular vesicles to deliver doxorubicin to melanoma in vitro and in vivo. *Cancer Biol Ther.* 2022 Dec 31;23(1):1-16. doi: 10.1080/15384047.2021.2003656. Epub 2021 Dec 29 (IF<sub>2020</sub> = 4.74; AIS<sub>2020</sub> = 0.80; Q2)

Emilia Licărete, **Valentin-Florian Rauca**, Lavinia Lupuț, Denise Minerva Drotar, Ioana Stejerean, Laura Pătraș, Bogdan Dume, Vlad Alexandru Toma, Alina Porfire, Gherman Claudia, Alina Sesarman, Manuela Banciu. Overcoming intrinsic doxorubicin resistance in melanoma by anti-angiogenic and anti-metastatic effects of liposomal prednisolone phosphate on tumor microenvironment. *International Journal of Molecular Sciences*, 2020; doi: 10.3390/ijms21082968 (IF<sub>2020</sub> = 5.92; AIS<sub>2020</sub> = 1.12; Q1)

Alina Sesarman, Dana Muntean, Bianca Abrudan, Lucia Tefas, Bianca Sylvester, Emilia Licărete, **Valentin-Florian Rauca**, Lavinia Lupuț, Laura Pătraș, Manuela Banciu, Laurian Vlase, Alina Porfire, Improved pharmacokinetics and reduced side effects of doxorubicin therapy by liposomal co-encapsulation with curcumin, *Journal of Liposome Research*, 2019; 12:1-10. doi: 10.1080/08982104.2019.1682604 (IF<sub>2020</sub> = 3.64; AIS<sub>2020</sub> = 0.48; Q2)

Emilia Licărete, **Valentin Florian Rauca**, Lavinia Lupuț, Laura Pătraș, Alina Sesarman, Manuela Banciu. The prednisolone phosphate-induced suppression of the angiogenic function of tumor-

associated macrophages enhances the antitumor effects of doxorubicin on B16.F10 murine melanoma cells in vitro, *Oncology Reports*, 2019; 42(6):2694-2705, doi: 10.3892/or.2019.7346 (**IF<sub>2020</sub> = 3.90; AIS<sub>2020</sub> = 0.67; Q3**)

Alina Sesarman, Lucia Tefas, Bianca Sylvester, Emilia Licarete, **Valentin-Florian Rauca**, Lavinia Luput, Laura Patras, Manuela Banciu, Alina Porfire. Anti-angiogenic and anti-inflammatory effects of long-circulating liposomes co-encapsulating curcumin and doxorubicin on C26 murine colon cancer cells. *Pharmacol Rep* 2017; 70(2): 331-339 (**IF<sub>2020</sub> = 3.02; AIS<sub>2020</sub> = 0.61; Q3**)

## **TEZA DOCTORALĂ**

**RAUCA V. Valentin-Florian.** Exploiting the therapeutic potential of oxidative stress modulators in melanoma/Exploatarea potențialului terapeutic al unor agenți ai modulării stresului oxidativ în melanom. Dată susținere publică: 31.07.2020, an emiterie OM 2020. Cod dosar: F-CA-31289/25.08.2020 Scientific Supervisor: Prof. dr. Elena Rakosy

## **PARTICIPARE CONFERINTE**

1. **Valentin-Florian Rauca**, Emilia Licărete, Alina Sesărman, Lavinia Lupuț, Laura Pătraș, Manuela Banciu. Enhanced antitumor efficacy induced by the coadministration of simvastatin and DMXAA on an in vitro melanoma inflammation model. **The Annual International Conference of the Romanian Society for Biochemistry and Molecular Biology (RSBMB)**, 8-9 th of June 2017, Timișoara, România. Book of abstracts: *New frontiers in chemistry*, 26(2), p. S2\_OP6 (**Oral presentation**).

2. **Valentin-Florian Rauca**, Tibor Casian, Alina Sesărman, Laurian Vlase, Ana-Maria Gheldiu, Manuela Banciu, Anca Toiu. Antitumor evaluation of extracts from selected indigenous *Ajuga* species on murine colon carcinoma and melanoma cell lines. **RSBMB International Conference**, 18-20th of April, 2018, Bucharest, Romania. *Romanian Journal of Biochemistry*, poster number 47 (**Poster presentation**).

3. **Valentin-Florian Rauca**, Laura Pătraș, Lavinia Lupuț, Alina Sesărman Emilia Licărete, Vlad Toma, Augustin C. Moț, Manuela Banciu. Shifting the balance towards an antitumorigenic melanoma microenvironment via co-administration of liposome-encapsulated simvastatin and DMXAA in vivo. **Annual International Conference of the RSBMB**, 26-27th of September 2019, Iași, România. Book of abstracts: *Journal of Experimental and Molecular Biology*, Tome XX, No 3, pag 41 (**Oral Presentation**).

4. **Valentin-Florian Rauca**, Laura Pătraș, Lavinia Lupuț, Alina Sesărman, Emilia Licărete, Vlad Toma, Augustin C. Moț, Manuela Banciu. Combination therapy of the liposome-encapsulated agents Simvastatin and DMXXA affects major mechanisms of murine melanoma development and progression. **The 24th World Congress on Advances in Oncology and 24th International Symposium on Molecular Medicine**, 10-12th of October, 2019, Mystras, Sparta, Greece. Book of abstracts: *Journal of Molecular Medicine*, volume 44, supplement 1, 219, 2019 (**Oral Presentation**).

5. Lavinia Lupuț, Emilia Licărete, Denise Minerva Drotar, Andras-Laszlo Nagy, Alina Sesărman, Laura Pătraș, **Valentin Florian Rauca**, Alina Porfire, Dana Muntean, Marcela Achim, Ioan Tomuță, Laurian Vlase, Manuela Banciu. Efficacy of the liposomal simvastatin in the colon carcinoma treatment approach. **The Annual International Conference of the RSBMB**, 8-9 th of June 2017, Timișoara, România. Book of abstracts: *New frontiers in chemistry*, 26(2), p. S2\_OP7 (**Oral presentation**).

6. Emilia Licărete, **Valentin-Florian Rauca**, Alina Sesărman, Laura Pătraș, Lavinia Lupuț, Manuela Banciu. A novel combination therapy for the treatment of melanoma by targeting tumor cell proliferation and angiogenesis. **The Annual International Conference of the RSBMB**, 8-9 th of June 2017, Timișoara, România. Book of abstracts: *New frontiers in chemistry*, 26(2), p. S2\_OP5 (**Oral presentation**).

7. Denise-Minerva Drotar, Ioana Stejerean, **Valentin-Florian Rauca**, Laura Pătraș, Lavinia Lupuț, Alina Sesărman, Emilia Licărete, Manuela Banciu. Liposomal prednisolone phosphate enhanced antitumor activity of liposomal doxorubicin in B16.F10 murine melanoma in vivo. **The Annual International**

**Conference of the RSBMB**, 8-9 th of June 2017, Timișoara, România. Book of abstracts: New frontiers in chemistry, 26(2), p. S2\_OP4 (**Oral presentation**).

8. Alina Sesărman, Lucia Tefas, Bianca Sylvester, Emilia Licărete, **Valentin Rauca**, Lavinia Lupuț, Laura Pătraș, Manuela Banciu, Alina Porfire. Cytotoxicity of long-circulating liposomes co-encapsulating curcumin and doxorubicin on C26 murine colon cancer cells. **The Annual International Conference of the RSBMB**, 8-9 th of June 2017, Timișoara, România. Book of abstracts: New frontiers in chemistry, 26(2), p. S2\_P24 (**Poster presentation**).

9. Lucia Tefas, Alina Sesărman, Bianca Sylvester, Emilia Licărete, **Valentin Rauca**, Lavinia Lupuț, Laura Pătraș, Manuela Banciu, Alina Porfire. Long-circulating liposomes co-encapsulating doxorubicin and curcumin for increased efficiency of colon cancer therapy. 2017 **Pharmaceutical Sciences World Congress**, 21-24th of May, 2017, Stockholm, Sweden, International Pharmaceutical Federation, p.1 (**Poster presentation**).

10. Lucia Tefas, Alina Sesărman, Bianca Sylvester, Sebastian Porav, Emilia Licărete, **Valentin Rauca**, Lavinia Lupuț, Laura Pătraș, Manuela Banciu, Alina Porfire. Liposomal co-encapsulation of DOX and CURC: a nanotechnological approach to increase antitumor activity against colon cancer. **Sixth World Conference on physico-chemical methods in drug discovery and development and third World Conference on ADMET and DMPK**. 4-7 th of September, 2017, Zagreb, Croatia. Book of Abstracts, pag 80 (**Poster presentation**).

11. Lavinia Lupuț, Emilia Licărete, **Valentin-Florian Rauca**, Alina Sesărman, Laura Pătraș, Tibor Casian, Denise Minerva Drotar, Alina Porfire, Dana Muntean, Marcela Achim, Ioan Tomuță, Laurian Vlase, Manuela Banciu. Antitumor effects of combined therapy based on the administration of liposomal 5-fluorouracil and liposomal simvastatin on C26 colon carcinoma in vivo. **RSBMB International Conference**, 18-20th of April, 2018, Bucharest, Romania. Romanian Journal of Biochemistry, poster number 32 (**Poster presentation**).

12. Emilia Licărete, Denise Minerva Drotar, Ioana Stejerean, Laura Pătraș, **Valentin-Florian Rauca**, Lavinia Lupuț, Alina Sesărman, Manuela Banciu. A novel combination therapy for the treatment of melanoma by co-administration of doxorubicin and prednisolone encapsulated in long-circulating liposomes in vivo. **RSBMB International Conference**, 18- 20th of April, 2018, Bucharest, Romania. Romanian Journal of Biochemistry, poster number 31 (**Poster presentation**).

13. Alina Sesărman, Lucia Tefas, Bianca Sylvester, Emilia Licărete, **Valentin Rauca**, Lavinia Lupuț, Laura Pătraș, Manuela Banciu, Alina Porfire. Passive targeting of colon cancer with curcumin and doxorubicin co-encapsulated in pegylated liposomes. **RSBMB International Conference**, 18-20th of April, 2018, Bucharest, Romania. Romanian Journal of Biochemistry, poster number 53 (**Poster presentation**).

14. Marius Alupeii, Lavinia Lupuț, Emilia Licărete, Laura Pătraș, Alina Sesărman, **Valentin Florian Rauca**, Alina Porfire, Andras-Laszlo Nagy, Manuela Banciu. Long-circulating liposomal simvastatin inhibits tumor growth via targeting cancer microenvironment-mediated processes. **The 12th International Conference and Workshop on Biological Biobarriers**, 27-29th of August, 2018, Saarbrücken, Germany (Oral presentation).

15. Emilia Licărete, Denise-Minerva Drotar, Ioana Stejerean, Laura Patras, **Valentin-Florian Rauca**, Lavinia Lupuț, Alina Sesarman, Manuela Banciu. Targeting melanoma microenvironment with liposomal prednisolone improved the therapeutic outcome of liposomal doxorubicin. **Annual International Conference of the Romanian Society of Biochemistry and Molecular Biology**, 26-27th of September 2019, Iași, România. Book of abstracts: Journal of Experimental and Molecular Biology, Tome XX, No 3, pag 20 (**Oral Presentation**).

16. Laura Pătraș, Alina Sesărman, Alina Porfire, **Valentin Florian Rauca**, Renata Hajdu, Andreea Kosa, Lavinia Lupuț, Emilia Licărete, Manuela Banciu. Dual role of cancer-derived extracellular vesicles in the modulation of tumor microenvironment. **Annual International Conference of the RSBMB**, 26-27th of September 2019, Iași, România. Book of abstracts: Journal of Experimental and Molecular Biology, Tome XX, No 3, pag 21 (**Oral Presentation**).

17. Alina Sesarman, Lucia Tefas, Bianca Sylvester, Emilia Licărete, **Valentin Rauca**, Lavinia Lupuț, Laura Patras, Sebastian Porav, Manuela Banciu, Alina Porfire. Manipulating the immune phenotype of

tumor microenvironment with liposomal curcumin and doxorubicin. **Annual International Conference of the Romanian Society of Biochemistry and Molecular Biology**, 26-27th of September 2019, Iași, România. Book of abstracts: Journal of Experimental and Molecular Biology, Tome XX, No 3, page 58 (**Poster presentation**).

18. Alina Sesărman, Lucia Tefas, Bianca Sylvester, Emilia Licărete, **Valentin Rauca**, Lavinia Lupuț, Laura Pătraș, Sebastian Porav, Manuela Banciu, Alina Porfire. Co-encapsulation of curcumin and doxorubicin in long circulating liposomes enhances the efficacy of colon cancer treatment. **The 24th World Congress on Advances in Oncology, and 24th International Symposium on Molecular Medicine**, 10-12th of October, 2019, Mystras, Sparta, Greece. Book of abstracts: International Journal of Molecular Medicine, volume 44, supplement 1, 219, 2019) (**Oral Presentation**).

19. Emilia Licărete, Denise Minerva Drotar, Ioana Stejerean, Laura Pătraș, **Valentin-Florian Rauca**, Lavinia Lupuț, Alina Sesărman, Manuela Banciu. Modulation of tumor microenvironment by liposomal prednisolone enhances the antitumor activity of liposomal doxorubicin in an in vivo model of murine melanoma. **The 24th World Congress on Advances in Oncology, and 24th International Symposium on Molecular Medicine**, 10- 12th of October, 2019, Mystras, Sparta, Greece. Book of abstracts: International Journal of Molecular Medicine, volume 44, supplement 1, 219, 2019) (**Oral Presentation**).

20. Lavinia Lupuț, Emilia Licărete, Alina Sesărman, **Valentin-Florian Rauca**, Laura Pătraș, Alina Porfire, Dana Muntean, Marcela Achim, Ioan Tomuță, Laurian Vlase, Manuela Banciu. Novel therapies based on long-circulating liposomal simvastatin in colorectal cancer. **The 24th World Congress on Advances in Oncology, and 24th International Symposium on Molecular Medicine**, 10-12th of October, 2019, Mystras, Sparta, Greece. Book of abstracts: International Journal of Molecular Medicine, volume 44, supplement 1, 219, 2019) (**Oral Presentation**).