

## Publication list

1. **Lungu, I. I.**, Holban, A. M. & Grumezescu, A. M. (2019). Chapter 1 – Superiorities of nanoscale materials in drug delivery. In *Materials for biomedical engineering: Nanomaterials based drug-delivery*. Elsevier, pp. 1-18, DOI:<https://doi.org/10.1016/B978-0-12-816913-1.00001-5>
2. Boarca B., **Lungu I. I.**, & Holban A. M. (2019). Chapter 7 – Core-shell nanomaterials for infection and cancer therapy. In *Materials for Biomedical Engineering: Bioactive materials for antimicrobial, anticancer, and gene therapy*. Elsevier, pp. 197-209, DOI: <http://doi.org/10.1016/B978-0-12-818435-6.00007-4>
3. **Lungu I. I.**, Grumezescu A.M., Volceanov A., Andronescu, E. (2019) Nanobiomaterials used in cancer therapy: An up-to-date overview. In *Molecules* Vol. 24, Issue 19, pp. 3547, DOI: <https://doi.org/10.3390/molecules24193547>
4. **Lungu I. I.**, Nistorescu S., Badea M. A., Petre A. M., Udrea A. M., Banici A. M., Fleaca C., Andronescu E., Dinischiotu A., Dumitrache F., Staicu A., Balasa M. (2020) Doxorubicin-conjugated iron oxide nanoparticles synthesized by laser pyrolysis. In vitro study on human breast cancer cells. In *Polymers* Vol. 12, Issue 12, pp. 2799, DOI: <https://doi.org/10.3390/polym12122799>
5. Badila E., **Lungu I.I.**, Grumezescu A.M., Udriste A.S.. (2021) Diagnosis of cardiac abnormalities in muscular dystrophies. In *Medicina*, Vol. 57, Issue 5, pp. 488, DOI: <https://doi.org/10.3390/medicina57050488>
6. **Lungu I.I.**, Grumezescu A.M., Fleaca C.T.. (2021) Unexpected ferromagnetism – A review. In *Applied Sciences*, Vol. 11, Issue 15, pp. 6707, DOI: <https://doi.org/10.3390/app11156707>
7. Nistorescu S., Udrea A.M, Badea M.A., **Lungu I.**, Boni M., Tozar T., Dumitrache F., Maraloiu V.A., Popescu R.G., Fleaca C., Andronescu E., Dinischiotu A., Staicu A., Balas M., (2021) Low blue dose photodynamic therapy with porphyrin-iron oxide nanoparticles complexes: *In vitro* study on human melanoma cells. In *Pharmaceutics*, Vol. 13, pp. 2130, DOI: <https://doi.org/10.3390/pharmaceutics13122130>
8. Teleanu D.M., Niculescu A.G., **Lungu I.I.**, Radu C.I., Vladacenco O., Roza E., Constachescu B., Grumezescu A.M., Teleanu R.I., (2022) An overvire of oxidative stress, neuroinflammation and neurodegenerative diseases. In *Molecular Sciences*, Vol. 23, Issue 11, pp. 5938, DOI: <https://doi.org/10.3390/ijms23115938>
9. Scientific paper – (2023) – ‘Laser pyrolysis synthesized iron oxide nanoparticles. A study on the influence of the sensitizer used’ **I.I. Lungu**, E. Andronescu, F. Dumitrache, L. Gavrilă-Florescu, A.M. Banici, I. Morjan, A. Criveanu, G. Prodan
10. Scientific paper – (2023) – ‘Laser pyrolysis of iron oxide nanoparticles and the influence of laser power’ **I.I. Lungu**, E. Andronescu, F. Dumitrache, L. Gavrilă-Florescu, A.M. Banici, I. Morjan, A. Criveanu, G. Prodan

## Patent

1. Patent application at the Romanian State Office for Inventions and Trademarks: **Lungu I.I.**, Fleaca C.T., Gavrilă-Florescu L., Balas M., Nistorescu I.S., Morjan I., Niculescu A.M., Dumitrache F.: “Procedure for obtaining iron oxide nanoparticles and biocompatible suspensions stabilized with sodium carboxymethyl cellulose (CMCNa)” (A/00573/23.09.2021)

## Conferences

1. **SICHEM 2020 – poster presentation** – Potentially therapeutic nanostructures for breast cancer treatment
2. **Autumn Scientific Conference AOSR 2020 – online presentation** – In vitro study of laser pyrolysis synthesized iron oxide nanoparticles conjugated with doxorubicin
3. **NanoBioMat 2021 – poster presentation** – Iron oxide nanoparticles for photodynamic therapy. An in vitro study
4. **NanoBioMat 2023 – poster presentation** – Laser pyrolysis of iron oxide nanoparticles and the influence of laser power

## Awards

1. **UNEFISCDI Award 2020** – PN-III-P1-1.1-PRECISI-2020-46527 **Lungu I. I.**, Grumezescu A.M., Volceanov A., Andronescu, E. (2019) Nanobiomaterials used in cancer therapy: An up-to-date overview. In *Molecules* Vol. 24, Issue 19, pp. 3547, DOI: <https://doi.org/10.3390/molecules24193547>
2. **UNEFISCDI Award 2021** – PN-III-P1-1.1- PRECISI-2021- 61773 **Lungu I. I.**, Nistorescu S., Badea M. A., Petre A. M., Udrea A. M., Banici A. M., Fleaca C., Andronescu E., Dinischiotu A., Dumitrache F., Staicu A., Balasa M. (2020) Doxorubicin-conjugated iron oxide nanoparticles synthesized by laser pyrolysis. In vitro study on human breast cancer cells. In *Polymers* Vol. 12, Issue 12, pp. 2799, DOI: <https://doi.org/10.3390/polym12122799>
3. **UNEFISCDI Award 2021** – PN-III-P1-1.1- PRECISI-2021- 61385 **Lungu I.I.**, Grumezescu A.M., Fleaca C.T.. (2021) Unexpected ferromagnetism – A review. In *Applied Sciences*, Vol. 11, Issue 15, pp. 6707, DOI: <https://doi.org/10.3390/app11156707>
4. **UNEFISCDI Award 2021** – PN-III-P1-1.1- PRECISI-2021- 61557 Badila E., **Lungu I.I.**, Grumezescu A.M., Udriste A.S.. (2021) Diagnosis of cardiac abnormalities in muscular dystrophies. In *Medicina*, Vol. 57, Issue 5, pp. 488, DOI: <https://doi.org/10.3390/medicina57050488>