Dr. Gheorghe Fundueanu-Constantin

Senior Scientist I
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Research topics

- Synthesis and characterization of hydrogels from synthetic and natural polymers for controlled release of drugs.
- Micro- and nanoparticles used as delivery systems for: water soluble and insoluble drugs; DNA in gene therapy; proteins, hormons, etc.
- Biomimetic and bioresponsive materials based on smart polymers for self-regulated drug delivery or other biomedical and biotechnological applications
- Polysaccharides and chemical modification of polysaccharides for biomedical applications

Profile address: Research ID: B-6794-2012 (http://www.webofscience.com/wos/author/record/B-6794-2012)

Scientific research

Expertise recognized by **85** published papers, leader in national and international grants, Romanian Academy Prize for Chemistry „Costin D. Nenitescu"
Research stages: Department of Pharmaceutical Sciences, University of Ferrara, Italy; Department of Biology, University 'Roma Tre', Italy; CERMAV-CNRS, Grenoble, France; Department of Analytical Chemistry, University of Thessaloniki, Greece; NATO fellowship (6 months, 2003), University from Ferrara
The high visibility of published papers is reflected in more than **2160 citations**, Hirsh-index= **25**, according to Web of Science (all databases).

Relevant publications

1. Constantin M., Bucatariu S., Ascenzi P., Butnaru M., Fundueanu G.
   Smart drug delivery system activated by specific biomolecules
   Mat. Sci. Eng. C 2020, 108, Article number 110466.
2. Fundueanu G., Constantin M. , Bucatariu S., et al.
   Simple and dual cross-linked chitosan millicapsules as a particulate support for cell culture
   Int. J. Biol. Macromol. 2020, 143, 200-212.
3. Fundueanu G., Constantin M., Bucatariu S., Ascenzi P.
   pH/thermo-responsive poly(N-isopropylacrylamide-co-maleic acid) hydrogel with a sensor and an actuator for biomedical applications
   Polymer 2017, 110, 177-186.
4. Constantin M., Bucatariu S., Harabagiu V., Ascenzi P., Fundueanu G.
   Do cyclodextrins bound to dextran microspheres act as sustained delivery systems of drugs?
   Int. J. Pharm. 2014, 469, 1-9
5. Fundueanu G., Constantin M., Oanea I., Ascenzi P., Simionescu B.C.
   Prediction of the appropriate size of drug molecules that could be released by a pulsatile mechanism from pH/thermoresponsive microspheres obtained from preformed polymers
   Acta Biomaterialia 2012, 8, 1281-1289
6. Fundueanu G., Constantin M., Oanea I., Ascenzi P., Simionescu B.C.
   Entrapment and release of drugs by a strict "on-off" mechanism in pullulan microspheres with pendant thermosensitive groups
   Biomaterials 2010, 31, 9544-9553
7. Fundueanu G., Constantin M., Ascenzi P.
   Poly(vinyl alcohol) microspheres with pH- and thermosensitive properties as temperature-controlled drug delivery
   Acta Biomaterialia 2010, 6, 3899-3907.
8. Fundueanu G., Constantin M., Ascenzi P.
   Preparation and characterization of pH- and temperature-sensitive pullulan microspheres for controlled release of drugs
   Biomaterials 2008, 29, 2767-2775.