



## Dr. Marieta Fundueanu-Constantin

Senior Scientist II

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### Research topics

- Synthesis and characterization of drug delivery systems based on polymeric micro-/nanoparticles, microcapsules, hydrogels obtained from synthetic and natural polymers
- Micro- and nanoparticles used as delivery systems for drugs, DNA in gene therapy and other bioactive compounds
- Smart composite hydrogels for controlled delivery of drugs
- Chemical modification (functionalization) of natural polymers

### Profile address:

Research ID: G-5199-2016 (<http://www.researcherid.com/rid/G-5199-2016>)

### Scientific research

Expertise recognized by **69** published papers, **2** book chapters, **1** patent, Area research leader (“Bio-oriented polymeric materials”) in FP7-REGPOT-2010-1/ (2010-2014) - Strengthening the Romanian research capacity in Multifunctional Polymeric Materials (STREAM), member in **3 international projects**, co-investigator in **20 national grants**, „Cr. I. Simionescu” **The Romanian Academy Prize for Chemistry**; research stages at CERMAV-CNRS, Grenoble, France, University of Ferrara, Italy; NATO fellowship (6 months, 2003), 1999-doctor-„P.Poni” Institute of Macromolecular Chemistry, Iasi.

The high visibility of published papers is reflected in more than **1280 citations** (without self-citation), Hirsh-index= **23**, 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. Samoila I., Dinescu S., Pircalabioru G.G., Marutescu L., Fundueanu G., Aflori M., Constantin M.  
**Pullulan/poly(vinyl alcohol) composite hydrogels for adipose tissue engineering**  
Materials 2019, 12, Article number 3220
3. Constantin M., Bucatariu S., Ursu L., Butnaru M., Daraba O.M., Burlui A.M., Fundueanu G.  
**Novel cationic and hydrophobic pullulan derivatives as DNA nanoparticulate carriers**  
Cell. Chem. Technol. 2019, 53, 695-707
4. Constantin M., Bucătariu S., Stoica I., Fundueanu G.  
**Smart nanoparticles based on pullulan-g-poly(N-isopropylacrylamide) for controlled delivery of indomethacin**  
Int. J. Biol. Macrom. 2017, 94, 698-708
5. Constantin M., Bucatariu S.-M., Doroftei F., Fundueanu G.  
**Smart composite materials based on chitosan microspheres embedded in thermosensitive hydrogel for controlled delivery of drugs**  
Carbohydr. Polym. 2017, 157, 493-502
6. Bucatariu S., Fundueanu G., Prisacaru I., Balan M., Stoica I., Harabagiu V., Constantin M.  
**Synthesis and characterization of thermosensitive poly(N-isopropylacrylamide-co-hydroxyethylacrylamide) microgels as potential carriers for drug delivery**  
J. Polym. Res. 2014, 21, Article number 580
7. 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
8. Constantin M., Bucatariu S., Ascenzi P., Simionescu B. C., Fundueanu G.  
**Poly(NIPAAm-co-β-cyclodextrin) microgels with drug hosting and temperature-dependent delivery properties**  
React. Funct. Polym. 2014, 84, 1-9