DIPARTIMENTO DI CHIMICA E TECNOLOGIE DEL FARMACO

CURRICULUM DIDATTICO-SCIENTIFICO DEL PROF. M. ANTONIETTA CASADEI

DATI PERSONALI

Name and surname	**M. ANTONIETTA CASADEI**
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Scientific-Disciplinary Sector: CHIM / 09 Applied Pharmaceutical Technological Sector
Receipt: Tuesdays 10-12 am

ATTUALE POSIZIONE

- Associate professor CHIM/09

CARRIERA E TITOLI

1980 Degree in Chemistry, University of Rome, 110/110 with laude
1981-82 Annual assignment for teaching chemistry at the Professional Institute Virginia Wolf of Rome
1982-86 Research fellow at CNR, Institute of Pharmaceutical Chemistry University of Rome
1986-87 Winner of a CNR-NATO scholarship for the foreign country at the Department of Chemistry of the University of Southampton (G.B.)
1988-98 University researcher group of disciplines n.95 (Applied Pharmaceutical Chemistry) of the Faculty of Pharmacy, University of Rome
1998 Winner of the competition for positions of associate professor for the scientific disciplinary sector C08X, current CHIM / 09.

ATTIVITA' DIDATTICA

1) Applied Pharmaceutical Chemistry (CTF, 4th year)
2) Drug Targeting and Delivery (optional CTF, 4th year)
3) Parenteral Nutrition I (Hospital Pharmacy Specialization School)

ATTIVITA' SCIENTIFICA

After the thesis in organic chemistry, the research activity involved for over 15 years the application of electrochemical methods to the synthesis of biologically active molecules. The research activity is currently directed towards different aspects of the modified (sustained and / or modulated or

specific site) release of the drug. In particular, new polymeric materials have been developed as scaffolds in tissue engineering and / or as systems for the modified release of drugs. The polymers used are derivatives of polysaccharides and poly-amino acids, functionalized to make them suitable for the formation of three-dimensional structures (hydrogels) both for electrostatic interactions and for the formation of chemical bonds between the chains. The current research is also directed towards the preparation of polymeric and lipid-based micro- and nano-particles for the protection and delivery of natural bioactive molecules to be used in the cosmetic and food fields. Further fields of research are aimed at the design and development of liposomes having a gelled aqueous compartment and hybrid nano-systems consisting of magnetic nano-particles and liposomes for the on-demand release of drugs.

PUBBLICAZIONI SCIENTIFICHE

		Impact Factor
1	Di Sotto A, Paolicelli P, Nardoni M, Abete L, Garzoli S, Di Giacomo S, Mazzanti G, Casadei MA, Petralito S SPC liposomes as possible delivery systems for improving bioavailability of the natural sesquiterpene beta-caryophyllene: lamellarity and drug loading as key features for a rational drug delivery design Pharmaceutics, 2018, 10:274	**3.746**
2	Adrover A, Varani G, Paolicelli P, Petralito S, Di Muzio L, Casadei MA, Tho I Experimental and modeling study of drug release from HPMC-based erodible oral thin films *Pharmaceutics*, 2018, 10:222	**3.746**
3	Nardoni M, Della Valle E, Liberti M, Relucenti M, Casadei MA, Paolicelli P, Apollonio F, Petralito S Can pulsed electromagnetic fields trigger on-demand drug release from high-tm magnetoliposomes? *Nanomaterials*, 2018, 8:196	**3.504**
4	Paolicelli P, Petralito S, Varani G, Nardoni M, Pacelli S, Di Muzio L, Tirillò J, Bartuli C, Cesa S, Casadei MA, Adrover A Effect of glycerol on the physical and mechanical properties of thin gellan gum films for oral drug delivery *International Journal of Pharmaceutics*, 2018, 547, 226-234	**3.862**
5	Masci A, Carradori S, Casadei MA, Paolicelli P, Petralito P, Ragno R, Cesa S Lycium barbarum polysaccharides extraction, purificatio, structural characterization and evidence about hypoglycemic and hypolipidaemic effects. A review *Food Chemistry*, 2018, 254: 377-389	**4.946**
6	Pacelli S, Paolicelli P, Avitabile M, Varani G, Di Muzio, Cesa S, Tirillò J, Bartuli C, Nardoni M, Petralito P, Adrover A, Casadei MA Design of a tunable nanocomposite double network hydrogel based on gellan gum for drug delivery applications *European Polymer Journal*, 2018, 104: 184-193	**3.531**
7	Paolicelli P, Varani G, Pacelli S, Ogliani E, Nardoni M, Petralito S, Adrover A, Casadei MA Design and characterization of a biocompatible physical hydrogel based on scleroglucan for topical drug delivery *Carbohydrate Polymers*, 2017, 174: 960-969	**5.158**
8	Cesa S, Carradori S, Bellagamba G, Locatelli M, Casadei MA, Masci A, Paolicelli P	

	Evalutation of processing effects on anthocyanin content and colour modifications of blueberry (Vaccinium spp) extracts. Comparison betwee HPLC-DAD and CIELAB analyses	**4.946**
9	*Food Chemistry*, 2017, 232: 114-123 Adrover A, Casadei MA, Paolicelli P, Petralito S, Varani G Swelling and drug release from oral thin films (OTFs)	
10	*AIP Conference Proceeding*, 2016, 1736 Krasodomska O, Paolicelli P, Cesa S, Casadei MA, Jungnickel Protection and viability of fruits seed oils by nanostructured lipid carrier (NLC) nanosuspensions	
	Journal of Colloids and Interface Science, 2016, 479: 25-33	**5.091**
11	Petralito S, Paolicelli P, Nardoni M, Apollonio F, Liberti M, Merla C, Pinto R, Casadei MA, Annesini MC Magnetoliposomes envisioning new strategies for water decontamination	
12	*Chemical Engineering Transactions*, 2016, 47: 37-42	**0.82**
	Alhaique F, Casadei MA, Cencetti C, Coviello T, Di Meo C, Matricardi P, Pacelli S, Paolicelli P From macro to nano polysaccharide hydrogels: an opportunity for the delivery of drugs	
13	J. *Drug Delivery Science and Technology*, 2016, 32: 88-99	**2.297**
	Pacelli S, Paolicelli P, Moretti G, Petralito S, Di Giacomo S, Vitalone A, Casadei MA Gellan gum methacrylate and laponite as an innovative nanocomposite hydrogel for biomedical applications	
	European Polymer Journal, 2016, 77: 114-123	**3.531**
14	Cesa S, Casadei MA, Cerreto F, Paolicelli P Infant milk formulas effect of storage conditions on the stability of powdered products towards autoxidation	
	Foods, 2015, 4: 487-500	
15	Pacelli S, Paolicelli P, Casadei MA New biodegradable dextran-based hydrogels for protein delivery. Synthesis and characterization	
16	*Carbohydrate Polymers*, 2015, 126: 208-214	**5.158**
	Pacelli S, Paolicelli P, Dressen I, Kobayashi S, Vitalone A, Casadei MA Injectable and photocross-linkable gels based on gellan gum methacrylate: a new tool for biomedical applications	
17	*International J. Biological Macromolecules*, 2015, 72: 1335-1342 Pacelli S, Paolicelli P, Pei F, Tita B, Vitalone A, Casadei MA Gellan gum and polyethylene glycol dimethacrylate double network hydrogels with improved mechanical properties	
	Journal of Polymer Research, 2014, 21: 1-13	**1.434**
18	Petralito S, Spera R, Pacelli S, Relucenti, Familiari G, Vitalone A, Paolicelli P, Casadei MA Design and development of PEG-DMA gel-in-liposomes as a new tool for drug delivery	
19	*Reactive and Functional Polymers*, 2014, 77: 30-38	**2.975**
	Casadei MA, Cesa S, Pacelli S, Paolicelli P, Tita B, Vitali F Dextran-based hydrogel microspheres obtained in w/o emulsion preparation:	

	Characterization and in-vivo studies	
20	*Journal of Microencapsulation*, 2014, 31: 440-447	**1.793**
	Lopez Cebral R, Martin-Pastor M, Paolicelli P, Sejio B, Casadei MA, Sanchez A	
	Application of NMR spectroscopy in the development of a bomimetic approach for hydrophobic drug association with physical hydrogels	
21	Colloids and Surfaces B: Biointerfaces, 2014, 115: 391-399	**3.997**
	Lopez Cebral R, Paolicelli P, Romeno-Camano V, Sejio B, Casadei MA, Sanchez A	
	Spermidine cross-linked hydrogels as novel potential platforms for pharmaceutical applications	
	Journal of Pharmaceutical Sciences, 2013, 102: 2632-2643	**3.075**
22	Cerreto A, Corrente F, Botta B, Pacelli S, Paolicelli P, Mannina L, Casadei MA	
	NMR investigation of carboxymethyl scleroglucan	
	International Journal of Polymer Analysis and Characterization, 2013, 14:587-595	**1.333**
23	Cerreto F, Paolicelli P, Cesa S, Abu Amara HM, D'Auria FD, Simonetti G, Casadei MA	
	Solid lipid nanoparticles as effective reservoir systems for long-term preservation of multidose formulations	
24	*AAPS Pharmaceutical Science and Technology*, 2013, 14: 847-853	**2.451**
	Corrente F, Abu Amara HM, Pacelli S, Paolicelli P, Casadei MA	
	Novel injectable and in situ cross-linkable hydrogels of dextran methacrylate and scleroglucan derivatives. Preparation and characterization	
25	*Carbohydrate Polymers*, 2013, 92: 1033-1039	**5.158**
	Cesa S, Casadei MA, Cerreto F, Paolicelli P	
	Influence of fact extraction on the peroxide value of infant formulas	
	Food Research International, 2012, 48: 584-591	
26	Corrente F, Paolicelli P, Matricardi P, Tita B, Vitali F, Casadei MA	**3.52**
	Novel pH-sensitive physical hydrogels of carboxymethyl scleroglucan	
	Journal of Pharmaceutical Science, 2012, 101: 256-267	
27	Cacchi S, Casadei MA, Di Giulio A, Fabrizi G, Forte G, Petrucci F, Goggiamani A, Moreno S, Paolicelli P, Prastaro A	
	Suzuhi-Miyaura cross-coupling of arendiazonium salts catalyzed by alginate/gellan stabilizeed palladium nanoparticles under aerobic conditions in water	
28	*Green Chemistry*, 2012, 14: 317-320	**8.596**
	Cerreto F, Scalzo M, Cesa S, Paolicelli P, Casadei MA	
	Solid lipid nanoparticles based on low melting lipids as protective system of retinyl palmitate	
	J. Drug Delivery Science and Technology, 2011, 21:479-483	***2.297***
29	Lopez Cebral R, Sejio B, Sanchez A, Casadei MA, Paolicelli P	
	Hydrogels prepared from natural anionic polymers	
	PCT Int. Appl. 2011, WO2011135150, A1 20111103	
30	Corrente F, Matricardi P, Paolicelli P, Tita B.,Vitali F,. Casadei M A	
	Physical gels carboxymethyl scleroglucan/calcium ions as modified drug delivery system in topical formulations	**3.098**
	Molecules, 2009, *14*: 2684-2698	
31	Paolicelli P, Cerreto F, Cesa S, Feenay M, Corrente F, Marianecci C, Casadei M A	
	Influence of the formulation components on the characteristics of the system SLN-dextran hydrogel employed for drug controlled release	**1.793**
	J. Microencapsulation, 2009, *26:* 429-436	

32 Feenay M, Casadei M A, Matricardi P.
Carboxymethyl derivative of scleroglucan: a novel thermo-sensitive hydrogel forming polysaccharide for drug delivery applications **2.993**
J. Material Sci., 2009, *20:* 1081-1087

33 Matricardi P, Pontoriero M, Coviello T, Casadei M A, Alhaique F.
In-situ crosslinkable novel alginate-dextran methacrylate IPN hydrogels for biomedical applications. Mechanical characterization and drug delivery properties
Biomacromolecules, 2008, 9: 43-49 **5.738**

34 Giannuzzo M, Feenay M, Corrente F, Paoletti L, Paolicelli P, Tita B, Vitali F, Casadei M A.
pH-sensitive hydrogels of dextran: synthesis, characterization and in-vivo studies
J. Drug Targeting, 2008, 16: 649-659 **3.408**

35 Casadei M A, Pitarresi G, Calabrese R, Paolicelli P, Giammona G.
Photocrosslinking of biodegradable and pH-sensitive dextran and polyaspartamide derivatives for colon-specific drug delivery
Biomacromolecules, 2008, *9*: 43-49 **5.738**

36 Pitarresi G, Casadei M A, Mandracchia D, Paolicelli P, Palombo F S, Giammona G.
Photocrosslinking of dextran and polyaspartamide derivatives: a combination suitable for colon-specific drug delivery
J. Control. Rel., 2007, *119*: 328-338 **7.877**

37 Casadei M A, Matricardi P, Fabrizi G, Feenay M, Paolicelli P.
Physical Gels of a Carboxymethyl Derivative of Scleroglucan : Synthesis and Characterization
Eur. J. Pharm. Biopharm., 2007, *67*: 682-689. **4.491**

38 Casadei M A, Cerreto F, Cesa S, Giannuzzo M, Feenay M, Marianecci C, Paolicelli P.
Solid Lipid Nanoparticles Incorporated in Dextran Hydrogels: a New Drug Delivery System for Oral Formulations
Int. J. Pharm., 2006, 325: 140-146 **3.862**

39 Feenay M, Giannuzzo M, Paolicelli P, Casadei M A
Hydrogels of Dextran Containing Non Steroidal Anti-inflammatory Drugs as Pendant Agents
Drug Delivery, 2007, 14: 87-93 **3.095**

40 Feroci M, Casadei M A, Orsini M, Palombi L, Inesi A.
Cyanomethyl Anion/Carbon Dioxide System; An Electrogenerated Carboxylating Reagent. Synthesis of Carbamates under Mild and Safe Conditions
J. Org. Chem., 2003, *68*: 1548-1551 **4.805**

41 Pitarresi G, Palombo F S, Giammona G, Casadei M A, Micheletti Moracci F.
Biodegradable Hydrogels Obtained by Photocrosslinking of Dextran and Polyaspartamide Derivatives
Biomaterials, 2003; *24*: 4301-4313 **8.806**