. Record Nr.	UNINA9910819999603321
Autore	Sonia Thundiparambil Azeez
Titolo	Oral delivery of insulin / / Thundiparambil Azeez Sonia, Chandra P. Sharma
Pubbl/distr/stampa	Cambridge, England : , : Woodhead Publishing, , 2014 ©2014
ISBN	1-908818-68-9 1-907568-47-6
Descrizione fisica	1 online resource (361 p.)
Collana	Woodhead Publishing Series in Biomedicine ; ; Number 41
Disciplina	616.462061
Soggetti	Insulin - Therapeutic use - Administration Diabetes - Oral therapy
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	 Cover; Oral Delivery of Insulin; Copyright; Contents; List of figures and tables; About the authors; 1 Diabetes mellitus - an overview; 1.1 Diabetes mellitus - an introduction; 1.2 Glucose homeostasis; 1.3 Types of diabetes; 1.4 Symptoms of diabetes; 1.5 Complications of diabetes; 1.6 Diagnosis of diabetes mellitus; 1.7 Therapy for diabetes; 1.8 Noninsulin treatment options of type 1 diabetes; 1.9 Treatment options of type 2 diabetes; 1.10 Conclusion; 1.11 References; 2 Routes of administration of insulin; 2.1 Current approach for the delivery of insulin 2.2 Routes of administration of insulin2.3 Conclusion; 2.4 References; 3 Oral insulin delivery - challenges and strategies; 3.1 Oral delivery of insulin; 3.2 Barriers to oral delivery of insulin; 3.3 Strategies and alternatives to improve oral insulin delivery; 3.4 Conclusion; 3.5 References; 4 Experimental techniques involved in the development of oral insulin carriers; 4.1 Introduction; 4.2 Polymeric nanoparticles; 4.3 Physicochemical characterization of nanoparticles; 4.4 Biological evaluation; 4.5 In vitro method for assessing drug permeability; 4.6 In vivo study of oral insulin 4.7 Biodistribution studies4.8 Conclusion; 4.9 References; 5 Lipids and inorganic nanoparticles in oral insulin delivery; 5.1 Lipid-based systems for oral delivery of insulin; 5.2 Liposomes; 5.3 Solid lipid

1.

	nanoparticles; 5.4 Nanostructured lipid carriers; 5.5 Niosomes; 5.6 Archaeosomes; 5.7 Cubic nanoparticles (cubosomes); 5.8 Aquasomes; 5.9 Inorganic nanoparticles as carriers for oral insulin delivery; 5.10 Conclusion; 5.11 References; 6 Polymers in oral insulin delivery; 6.1 Introduction; 6.2 Characteristics of an ideal oral insulin carrier; 6.3 Polymers in oral insulin delivery 6.4 Natural polymers6.5 Synthetic polymers; 6.6 Conclusion; 6.7 References; 7 Summary and future perspectives for oral insulin delivery; 7.1 Introduction; 7.2 Technologies developed for clinical applications of oral insulin delivery; 7.3 Conclusions and future perspectives; 7.4 References; Index
Sommario/riassunto	Diabetes Mellitus, a syndrome of disordered metabolism, characterised by abnormal elevation in blood glucose level, has become a life- threatening condition for many people. Current means of therapy for Diabetes Mellitus do not mimic the normal physiological pattern of insulin release. Oral delivery is the preferred route of administration due to its non-invasive nature. Oral delivery of insulin presents an overview of Diabetes Mellitus, and discusses the strategies and techniques adopted for oral delivery of insulin. This title begins with an introductory chapter on symptoms, complications and