

The doctorate on "Clinical and experimental medicine" is organized in 3 years.

The objective of the PhD course is the training and of high quality researchers to improve their scientific and research autonomy in the ambit of high social impact diseases. It is structured in 4 Curricula: 1. "Pathology and Clinics of atherosclerosis" which involves the study of lipid metabolism, new methods for the study of liver steatosis, and research on regulation and modulation of immune-mediated (indolamine 2,3 dioxygenase-1) IDO tolerance in the plasma and adipose tissue of persons with obesity, sepsis and inflammation; 2. "Neurosciences" which is aimed to improve knowledge on pathogenic mechanisms and preclinical aspects of neurodegenerative, vascular and inflammatory diseases of the nervous system, headaches and epilepsy, synaptic activity and physiological plasticity as well as plasticity in experimental models of neurological diseases with particular regard to neurodegenerative diseases; 3. "Surgical sciences" which is devoted to improve surgical methodology of experimental research, especially in oncology, with potential application and translation in the clinical field, and to develop new diagnostic and therapeutic strategies applied to diseases of several organs or apparata (stomach and bowel, respiratory and urinary tracts, ear, nose and trough); 4. "Biotechnologies in human bone marrow transplantation" (with a over 20 years experience on haplo-identical transplantation) which is particularly targeted to genome analysis and usage of monoclonal antibodies in the diagnosis and monitoring of residual minimal onco haematologic diseases and also to development of enrichment methods, and the application of haematopoietic stem cells as well as post-transplantation immunological reconstitution of bone marrow in haematological diseases.

The Director, Prof. Paolo Calabresi, is one of the main expert of Parkinson disease and has produced more than 300 international papers on preclical and clinical aspects not only in the field of Movement Disorders but also in that of other neurodegenerative and inflammatory diseases and also in headaches.

The teaching staff include 42 Researchers and Professors with consolidated experience in one of the Phd curricula.

The PhD avails itself of the collaboration of several International Research institutes where some of the Phd Students are hosted to improve their training or are involved in common research projects.