The X Workshop on Apoptosis in Biology and Medicine is organized in the frame of the PhD course on Pharmacology and Biochemistry of Cell Death run at the University of Calabria in consortium with the University Magna Graecia of Catanzaro and the University Tor Vergata of Rome. This will provide the students with the opportunity to meet with outstanding scientists of worldwide reputation in the field of pharmacology of cell death and repair and to discuss with them their research projects. The topics selected for this one and a half day meeting will range from basic mechanisms of neuronal cell death to the most recent experimental development of novel pharmacologic targets for therapeutical intervention. Starting in the year 1996 with the initial discussion on the biochemical and morphological features of apoptotic cell death and on the techniques developed for their identification, during the recent years the Workshop on Apoptosis in Biology and Medicine has been devoted to the discussion of hot topics concerned with the role of this type of cell demise in the development of human diseases like acute and chronic neurodegenerative disorders (stroke, Parkinson’s and Alzheimer diseases, neuroAIDS etc.) and cancer. Decipheration of the human genome has posed new opportunities for a better understanding of the pathophysiological mechanisms underlying human diseases though limitations of a pure genomic approach to the development of novel therapeutics have emerged. Identification, however, of key cellular effector molecules yielded the proteomic approach to the study of mechanisms of cell death and repair generating important results mainly in the field of clinical oncology. In the frame of the depicted “omic” scenario of biomedical research the workshop is the venue where the fundamental role of the multidisciplinary approach typically used by Pharmacology in the development of novel therapeutics will be presented.
Thursday, 29th March

17.30 Welcome address
   Latorre G. (University Rector)
   Guarasci R. (President of CoCoP)
   Invited Opening Lectures

Chairpersons: Di Renzo G.F. (Naples)
               Borgese D. (Catanzaro)

18.00 Melino G. (Rome)
   Death by the p73 family: from cancer to neurodegeneration

18.30 Biggio G. (Cagliari)
   Effect of social isolation stress on GABA_A receptor plasticity and function

19.00 Bowery N.G. (Birmingham, UK)
   The discovery of GABA_B receptors: From bench to bedside

Friday, 30th March

9.00-13.30 MEDIATORS OF NORMAL AND PATHOLOGICAL NEURONAL FUNCTION

Chairpersons: Cuomo V. (Rome)
               Quattrone A. (Catanzaro)

9.00-9.25 Annunziato L. (Naples)
   Differential expression of Na+/Ca2+ exchanger in experimental brain ischemia

9.25-9.45 Amantea D., Bagetta G. and Corasaniti M. T. (Cosenza, Catanzaro)
   Dissection of the dual role of neuroinflammatory mediators in brain ischemia

9.45-10.10 Bonanno G. (Genoa)
   Excessive and precocious glutamate release in a mouse model of amyotrophic lateral sclerosis

10.10-10.35 Mollace V. (Catanzaro)
   The role of astrocytes in normal and pathological neural plasticity

10.35-11.00 Coffee break

DISCOVERY OF NOVEL NEUROTHERAPEUTICS

Chairpersons: Bagetta G. (Cosenza) Mercuri N. B. (Rome)

11.00-11.25 Cuomo V. and Gaetani S. (Rome)
   Endocannabinoids: from discovery to the development of novel therapies

11.25-11.45 Di Chiara G. (Cagliari)
   Role of dopamine in the reward system and addiction

11.45-12.10 Moroni F. (Florence)
   Novel nuclear targets to reduce ischemic injury

12.10-12.35 Spano P. F. (Brescia)
   Novel targets for neuroprotection

12.35-13.0 General Discussion