**P R O P O S A L**

**First PhD School “Molecular Medicine” in SE Europe**

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**Introduction/Problem:**

Recent advances in medicine esp. in oncology, human genetic, diabetes/endocrinology/metabolism, pharmacology etc. are the result of research in mol& cell medicine. New insights in the mol pathophysiology events, new diagnostic procedures and promising treatments were developed. Consequently practical all fields in medicine now depend on very recent advances and current practical knowledge of mol medicine& biology. – Unfortunately with few exceptions the field of mol medicine is practically not developed inmany medical institutions in SE Europe, in fact often there is a gap of >30 years! So e.g. young bright med students/doctors are frustrated, the best leave the country and go for some research activity followed later by research-based medicine outside SE Europe (and stay away).

**Aims:**

* Introduction of mol& cell medicine/biology in the curriculum of students from medicine and molbiol by introduction of first experiments in the lab.
* Esp introduction of PhD school with an experimental background in med/molbiol (first the young people will than spread the knowledge in all fields of med in the coming years).
* Promotion of mol& cell techniques in all fields of medicine in few selected regional labs (thus providing core facilities).
* Establishment of knowledge and practical experience in mol medicine in selected centers in the region and thereby also establish a certain standard in education and research.
* Common PhD school events with international participation, e.g. weekend teaching events for first presentation of results (first steps of continuous evaluation), e.g. 5 times/year in Inter University Center Dubrovnik (IUC) or going around in the region + practical coursesin the molbiol/cell labs. Purpose: regional networking, development of corporate identity of the mol medicine PhD graduates, promotion and exchange of knowledge.
* Visit of Europ. Meetings with first poster and oral communications.
* Performing full time research for 9 months up to max 2 ½ year by providing stipends.

**Regional Institutions:**

* Zagreb: Institute Ruder Boskovic, DeptMol Medicine (equipment available).
* Rijeka: Univ Rijeka, Dept Biotechnology (equipment available).
* Belgrade: (i) Medical Faculty, DeptBiochem (“basic” equipment available), (ii) Biol Faculty (“basic” equipment available).
* Kragujevac: Medical Faculty, Dept Genetics (“basic” equipment available).
* Skopje: (i) Medical Faculty DeptPediatrics (“basic” equipment available), (ii) Pharmaceutical Faculty (“basic” equipment available).
* Sarajevo: (i) Medical Faculty, DeptPathophysiology (first equipment just available), (ii) Faculty of Science,Institute Gen Engineering (“basic” equipment available).
* Prishtina: Medical Faculty, DeptPathophysiology (first equipment is asked for in an EU application, Jan 2012).
* The network should be extended to Podgorica, Tirana, Sofia (?), Timisoara (?) and probably others.

**Partners outside SE Europe:**

* Hamburg Medical Faculty with the SEE network established 1996 - intensively since 2000.
* Vienna Medical University, SEE partner in curriculum reform and SEE summer schools.
* Tuebingen, Frankfurt, Dresden, Graz as reliable partners in SEE cooperation.

**Program:**

* Each of the ca 11 institution may haveca 4 – 5 young PhD researchers (total no more than 50), who should be supported by a stipend from ca 9 months up to 2 ½ years.
* Precise research topic, one local and one international mentor.
* Gaining international experience by external lab visit (PhD “twinning”/”sandwich” procedure).
* Attending Europ Med Conferences with poster presentation.
* Local education,e.g. journal club, poster presentation, lab discussion, paper writing, thesis writing program + practical courses, some teaching to younger students (e.g. 2 h/week).
* Attendance/contribution to the regional weekend events (evaluation) in IUC Dubrovnik (see [www.IUC.hr](http://www.IUC.hr)) and/or running through the SEE region.
* For standards of a PhD program see: www.ORPHEUS.hr

**Budget/Year:**

* 50 stipends for local and international lab work (~€ 800) = € 500,000.-
* Consumables mol/cell/biol in the 10 centers, each ~30,000/year = € 300,000.-
* Additional equipment in the centers + running equipment ~15,000/year =€ 150,000.-
* Regional weekend events, 5 times/year 5 x 30,000.-= € 150,000.-
* Support to visit Europ. Meetings: 20 x € 1000.- = € 20,000.-
* Office for coordination in Hamburg ~5% = €60,000.-
* Overhead ~5%= € 60,000.-
* **Funding by special SE Europe EU- Program Sum/year € 1,240,000.-**

**Additional Funding:**

* EU programs as COSTS, Erasmus PhD, Erasmus Mundus Action.
* DAAD Stability Pact for SE Europe.
* Special local programs as co-financing sources.

**Outlook:**

* This PhD school should run up to ~5 years, and then the med disciplines like oncology, human genetic etc. should be able to started their own specific mol/cell med program financed by specific local, regional and EU programs.
* A similar PhD School idea might be useful for topics such as (i) Med Psychology/Adult & Juvenile Psychiatry/Psych.Traumatology,and(ii)Bacteriology/Immunology/Laboratory Medicine/Infectiology/ Rheumatology/Allergy(Please contact me).

**SE Europe Experience:**

Starting in 2000 the Med Faculty Univ Hamburg established a SE European Med/MolBiol network incl. as main partners Zagreb, Belgrade, Sarajevo, Skopje, Prishtina, Podgorica, Tirana & IUC Dubrovnik and organized(i) 17 Summer Schools, (ii)>80 Continuing Med Education Events (mainly on weekends), (iii) >13 Med Curriculum Meetings for modernization of med education, (iv) 170 students’ exchanges with Hamburg, (v) >350 med scientist’s invitations (3 days up to 2 years) into the SEE Region and Germany, (vi) the donation (€ 400,000.-)of research equipment for med institution in the region, (vii) an EU-TEMPUS-Project for Prishtina (€ 500,000.-).

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