

29th January – 8th February 2007

Module P : Biodegradable polymeric carriers

Day	Morning (9.00 – 12.00)	Afternoon (13. 00 - 16.30)
Mo 29.01	Arrival in Hradec Králové	16:00 – 19:30 Presentation. Introduction. Tour of the Dep. Pharm. Technol. Labs Welcome Reception 19:30
Tue	<p><i>Seminary Module P1</i> Polymer Synthesis</p> <ul style="list-style-type: none"> • Aliphatic polyesters, polyesterurethanes, polyesteramides • Molecule modification <p>Polymer Phys.-Chem. Analysis</p> <ul style="list-style-type: none"> • Molecular weight • Constitution, configuration, conformation • Supramolecular structure, physical states 	<p><i>Seminary and Laboratory Module P2</i> Bioadhesive Materials</p> <ul style="list-style-type: none"> • Bioadhesion • Theories of bioadhesion • Properties of adhesive polymers • In vitro testing of adhesion y
We	<p><i>Module P3</i> Selected Methods of Polymers Evaluation (Visit of SYNPO Institute Pardubice) DSC, GPC, GPC-MALS; End groups analysis, surface tension, viscosimetry, mechanical testing</p>	
Thu	<p><i>Seminary and Laboratory Module P4</i> Polymer Microparticulate Systems</p> <ul style="list-style-type: none"> • Properties, parameters evaluation • Preparation methods • Emulsion solvent distribution method • Texture analysis by light microscopy • Preparation methods - Spray drying • Size and shape evaluation - Image analysis 	<p><i>Seminary and Laboratory Module P5</i> Polymer Nanoparticles</p> <ul style="list-style-type: none"> • Preparation – Sonication, homogenization (tandem) • Evaluation – Particle size, zeta potential
Fri	<p><i>Seminary Module P6</i> Immunocompatibility of Biodegradable Particulate Systems</p>	<p><i>Excursion</i> Invited Lecture (3 h) Harvest and Preservation of Tissues for Drug Delivery Studies; Departure to Prague</p>
Sat 03.02	Invited Lectures:	Free-time
Sun	Free-time program in Prague	(comeback to Hradec Králové on evening)

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Module S: Transdermal delivery		
Day	Morning (8.30 – 12.00)	Afternoon (13. 00 - 16.30)
Mo	<p><i>9.00 Discussion Morning</i></p> <ul style="list-style-type: none"> • Participants presentation of their own topics and discussion 	<p><i>Seminary and Laboratory Module S1</i></p> <p>Skin Penetration and Permeation Enhancement</p> <ul style="list-style-type: none"> • Permeation method adjustment • Stripping method adjustment
Tue	<p><i>Seminary and Laboratory Module S2</i></p> <p>High Pressure Homogenizing (Emulsiflex)</p> <ul style="list-style-type: none"> • Microemulsions • Nanosuspensions; nanocrystals and solid lipid nanoparticles 	<p><i>Laboratory Module S2 (continuation),S3</i></p> <p>Lipid Nanoparticle Systems Evaluation</p> <ul style="list-style-type: none"> • Zeta-sizer theory • Size and zeta potential determination • pH-titration
We	<p><i>Seminary and Laboratory Module S4</i></p> <p>Thermal Phase Behaviour of Skin Lipids</p> <ul style="list-style-type: none"> • Principles • Sample preparation, DSC measurement • Evaluation of data 	<p><i>Laboratory Module S5</i></p> <p>Skin Electroporation</p> <ul style="list-style-type: none"> • Principles, variables • Electric current and skin barrier • In vitro experiment adjustment
Thu	<p><i>Laboratory Module S1, S5</i></p> <p>(continuation)</p> <p>Skin permeability measurement</p> <ul style="list-style-type: none"> • Evaluation of data • Results interpretation 	<p><i>Excursion in the Bank of Tissue ca 2 h</i></p> <p>Dinner</p>
Fri	Departure	