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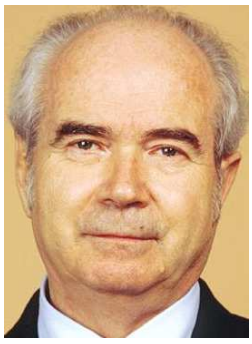
Three Pioneers of CD Research: Part 3. Prof. József Szejtli



In this year 3 emblematic researchers in cyclodextrin science have or would have celebrated 80th birth day. We greated Prof. Nagai and Prof. Duchene in the May and June issues of Cyclodextrin News. Prof Szejtli was born in December, therefore the December issue is dedicated to him.

After several years of research in carbohydrates (amylose, alginates, chondroitin sulfate, etc.) as PhD student at the Technical University of Budapest, a postdoctor fellow at the Technical University of Trondheim (Norway) (1963-64), research fellow at the Institute of Nutrition in Potsdam (Germany) (1965-66) and as professor at the University of Havana (Cuba) (1967-70) he started to deal

with cyclodextrins as the head of the Biohemical Research Laboratory of Chinoin Pharmaceutical and Chemical Works in Budapest (1971-88). Later on, after the political changes in Hungary, he founded and became the managing director of CycloLab Cyclodextrin Research and Development Laboratory, a private company. He believed that cyclodextrins are nontoxic, cheap and versatile molecules, when nobody else believed it. He has devoted his life to cyclodextrins.

He was really a pioneer making systematic research to deeper understand the behavior of cyclodextrins, to find new applications and to answer many unanswered questions. With the support of Chinoin, one of the biggest pharmaceutical companies in Hungary, he collaborated with several universities and research institutes. At that time, the number of Hungarian scientists involved in this research was about 100. Prof. Szejtli harmonized the work of these teams working on toxicology, synthesis, analysis and applications of cyclodextrins. He organized the Hungarian Cyclodextrin Workshops twice a year, where the cyclodextrin researchers could present and discuss their latest results. He stimulated the cyclodextrins production in 100 kg scale in the seventies, when they were produced at 100 g scale as a maximum. Realizing the exponentially increasing number of patents and papers, he organized the first International Cyclodextrin Symposium in Budapest in 1981 with participants from 17 countries. Since then the International Cyclodextrin Symposia became the most important event held biannually. The 8th symposium was again in Budapest in 1996. This old tradition started by him is still continued with the 17th symposium in Saarbrücken in 2014.

His ambitious scientific programme in collaboration with national and later with international partners resulted in more than 100 patents, 500 papers including conference presentations. He wrote or edited six books, some of them are still textbooks for the cyclodextrin researchers. He was the member of several academic committees, of the editorial board of "J. Inclusion Phenomena". He was the founder and the chief editor of the Cyclodextrin News. He received several national and international awards. Prof. Nagai designated him as “Mr. Cyclodextrin”. Proceedings of the 9th International Cyclodextrin Symposium was dedicated to the 65th birthday of Tsuneji Nagai and Jozsef Szejtli.

We have missed his enthusiasm and vivid personality since his death in 2004.

Eva Fenyvesi

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Budapest, HUNGARY

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Chitosan, Enzyme Immobilization, Packed Bed Reactor

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Beta-Cyclodextrin, Inclusion Complex, Methicillin, MIC, MRSA, NMR, Potentiation

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Omeprazole, PM3, Solvents, TICT

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Co-solvent, Poorly Water-Soluble Pharmaceutical, Solubility

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Black Foam Films, Phospholipids, Amphiphilic Cyclodextrin, Lysozyme, Cholesterol Arm, Dosulepine

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Capillary Electrochromatography, Chiral Separation, Chiral Stationary Phase

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Breast Cancer, Cell Adhesion, Dissemination, Invasion, Mechanical Properties, Poly(Ethylene) Glycol Hydrogels

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Cholesterol, Cooling, Equine Semen, Fertility

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Alzheimer's Disease, Amyloid Precursor Protein, Apoe, Cholesterol Metabolism, Lipid Raft, Protein Aggregation

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Chitosan, Delivery Barriers, Ligand, Nanoparticles, RNA Interference, SiRNA

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Cholesterol, Fluorescence Microscopy, FM1-43, Neuromuscular Junction, Synaptic Vesicle

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IRAK, Lipid Rafts, Myd88, Phytosterols, SOCS, TLR4

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Beta1 Integrin Clustering, Adaptor Proteins, Focal Adhesion, Lipid Raft, Melanoma Cell Spreading

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FITC, Cardiac Hypertrophy, Endocytosis, Gq Protein, Polypeptide Drug, Transmembrane Transport, Methyl-Beta-Cyclodextrin

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Food Additive, Good Taste, Ginger Oil

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Pesticidal Composition, Fungi, Bacteria, Viruses, Insects, Arachnids, Nematodes, Slugs, Snails, Arthropod

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Fungicide, Insecticide, Physic. Chemical Techniques

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Centrifugal Partition Chromatography (CPC), Green Coffee Extract, Inclusion Complexes, LC-MSMS, Beta-Cyclodextrin

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High-Amylose Maize Starch, Postprandial Glycemic Response, Self-Assembly of Amylose, Slowly Digestible Starch, Tea Polyphenols, Hydrogen Bonding

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Instant Rice, Optimisation, Quality Improver, Quality Properties

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High-Fat Breakfast, Triglyceride Level

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Desert Truffle, Encapsulation, Mycelium, Terfezia Claveryi, Tuber Melanosporum

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Aroma Compounds, Encapsulation, Nanofibers, Pullulan, Active Packaging

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Packaging, Polyesters, Properties and Characterization, Spectroscopy, Thermoplastics

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Broiler, Di-D-Fructose Dianhydrides, Inulin, Microbiota, Prebiotics

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Brown Rice, Drying, Fluidized Bed, Glycemic Index

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Characterization, Inclusion Mode, Naringenin

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Catalysis, Metallic Nanoparticles, Nanomaterials, Solvent, Surfactants, Water, 55-95

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Beta-Cyclodextrin, Adsorption Isotherm, Chiral Separation, Kinetic Model

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Biocomposite, Chitosan, Functional Properties, Hydroxypropyl-Betacyclodextrins, Sorption of Carvacrol

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Artificial Soils, Bioavailability, Biodegradation, Extractability, Lindane, Phenanthrene

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Beta-Cyclodextrin, Adsorbent, Adsorption, Biodegradable, Heavy Metal Removal

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Adsorption, Bisphenol A, Carboxymethylcellulose, Hydrogel Beads

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Catalytic Site Modification, Glutathione Peroxidase, Substrate-Binding, Tellurium Containing Cyclodextrin

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Dendrimers, Hyperbranched Polymers and Macrocycles, Membranes, Nanostructured Polymers

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Beta-Cyclodextrins Chiral Ionic Liquid, Chiral Separation, Immobilization, Layer-by-Layer Assembly

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Amylose, Crystallinity, Solanum Lycocarpum, Starch Characterization

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beta-Cyclodextrin, MCR, Dihydroisoindolo[2,1-a]quinazoline-5,11-dione, Microwave

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Electron Spin Resonance (ESR) Spectroscopy, Gas Crossover, In Situ Fuel Cell, Membrane Electrode Assembly (MEA), Spin Trapping ESR

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Block Copolymer, Directed Self-Assembly, Graphoepitxy, Lift-Off

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Beta-Cyclodextrin, Acid Dyes, Chitosan, Membranes, Wastewater Treatment

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Aqueous Solution,. Chem.sensor, FITC, FRET, TNT, Beta-Cyclodextrin

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Beta-Cyclodextrin, Adsorption Isotherm, Chiral Separation, Kinetic Model, Thermodynamics Parameters

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9-Fluorenylmethylchlorofrormate, Amino Acid, Capillary Electrophoresis, Chiral Separation, Polyethylene Oxide, Stacking

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Amitriptyline Hydrochloride, Capillary Electrophoresis, Chlordiazepoxide, Imipramine Hydrochloride, Quality Control

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Atmospheric Pressure. Chemical Ionization Mass Spectrometry, Chiral LC, Reversed Phase LC, Triacylglycerols, Yeast

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Beef, CE, Oils, Omega Fatty Acids, Polyunsaturated Fatty Acids

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Capillary Electrophoresis, Chiral Ligand Exchange, Kojic Acid, Tyrosinase Inhibitor

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