

119.B
1986

UNIVERSIDAD DE BUENOS AIRES
FACULTAD DE CIENCIAS EXACTAS Y NATURALES.

ASIGNATURA: Curso de Seminarios de Porfirinas y Porfirias.

CARRERA: Graduados de Cs. Químicas, Medicina, Cs. Biológicas y Farmacia y Bioquímica.

CARÁCTER: Post-Grado.

DURACIÓN: 1º y 2º cuatrimestre.

RESPONSABLE: Dra. María del Carmen Alcira Batlle de Albertoni.

HORAS DE CLASE: 2 hs. semanales.

EVALUACIÓN FINAL: para doctorandos únicamente, quienes además deberán presentar 4 seminarios.

PROGRAMA.

Succinil-CoA Sintetasa. ALA-Sintetasa. DOVA-Transaminasa. Rodenasa. Cistationasa. ALA-Dehidrasa. Metales y la biosíntesis del hemo. PBGasa. CPGasa. Decarboxilasa. Proto-
gen oxidasa. Metal quelatasa. Hemo oxigenasa. Metodología para determinación de porfirinas y precursores. Cromatografía líquida de alta presión. Biosíntesis del hemo en bacterias, levaduras, vegetales y animales. Enzimopatías en el metabolismo del hemo. Bioquímica de parásitos y su relación con el metabolismo del hemo. TRYPANOSOMA CRUZI. Porfirias cutáneas y Agudas. Porfirias Eritropoyéticas. Porfiria Experimental. Terapia enzimática. Liposomas e intoxicación con plomo. Acción de fantaemas de eritrocitos cargados sobre distintas porfirias. Biosíntesis de corrilas. Vit. B₁₂. Biosíntesis de clorofilas y bacterioclorofilas. Biodegradación de hemos y clorofilas. Polipirroles de cadena abierta. Pigmentos biliares. Ficobilinas y Ficocianinas. Regulación de la biosíntesis de hemos y clorofilas.

BIBLIOGRAFIA.

Liposomas en Sistemas Biológicos.
Aplicación en el tratamiento de las
Porfirias.

Decreased Blood of Ethanol and
Acetaldehyde by S-Adenosyl-L-Methionine
in Humans. C. Di Padova, R. Tritapepe,
P. Rovagnati, M. Pozzoli & G. Stramenti
noli. Disease, Metabolism and
Reproduction in the Toxic Response to
Drugs and Other Chemicals Arch. Toxicol.
Suppl. 7 (1984) 240-242. Ed. Springer-
Verlag.

Decreased Thiosulfate Sulfur Transferase
(Rhodanese) in Leber's Hereditary Optic
Atrophy. B. Cagianut, H.P. Schnebli, K.
Rhyner & J. Furrer. Klin. Wochenschr
62 (1984) 850-854.

Enzymatic and Immunological Studies of
Uroporphyrinogen Decarboxilase in
Familial Porphyria Cutanea Tarda and
Hepatoerythropoietic Porphyria. H. de
Verneuil, C. Beaumont, J.C. Deybach,
Y. Nordmann, Z. Sfar & R. Kastally.
Am. J. Hum. Genet. 36 (1984) 613-622.

Relationship of Alcohol Metabolism to
Folate Deficiency Produced by Ethanol
in the Rat. K.E. McMartin & T.D. Collins.
Pharmacology Biochemistry & Behavior. 18
Suppl. 1. (1983) 257-262.

Comparative inhibition of hepatic hydroxy
methylbilane synthase by both hard and
soft metal cations. D.J. Farmer & B.R.
Colliebone. Can. J. Biochem. Cell Biol.
62 (1984) 49-54.

Isolation and properties of 5-amino-levulinic synthase from the yeast *Saccharomyces cerevisiae*. C. Volland & F. Felix. Eur. J. Biochem. 142 (1984) 551-557.

Cyanide intoxication and its mechanism of antagonism. J.L. Way. Ann. Rev. Pharmacol. Toxicol. 24 (1984) 451-481.

Adenosine 5'-O-(3-Thio)triphosphate, a Substrate and Potent Inhibitor of *Escherichia coli* Succinyl-CoA Synthetase. Additional evidence for a cooperative alternating-sites mechanism. J.S. Nishimura & T. Mitchell. J. Biol. Chem. 259 (1984) 9642-9645.

Control of Heme Oxygenase and Plasma Levels of Bilirubin by a Synthetic Heme Analogue, Tin-Protoporphyrin. A. Kappas, G. Drummond, C.S. Simionato & K.E. Anderson. Hepatology 4 (1984) 336-341.

Domain Structure of Rabbit Hemopexin. Isolation and characterization of a heme-binding glycopeptide. W.T. Morgan & A. Smith. J. Biol. Chem. 259 (1984) 12001-12006.

Effect of unsaturated fatty acids on protoporphyrinogen oxidation, a step in heme and chlorophyll synthesis in plant organelles. J.M. Jacobs & N.J. Jacobs. Biochemical and Biophysical Research Communications. 123, Nº 3 (1984) 1157-1164.

Decarboxylation of Uroporphyrinogen I and III in 2,3,7,8-tetrachlorodibenzo-p-dioxin induced porphyria in mice. L. Cantoni, D. Dal Fiume & R. Ruggieri. Int. J. Biochem. 16, Nº 5 (1984) 561-565.

Purification, Characterization, and Fractionation of the δ-Aminolevulinic Acid Synthesizing Enzymes from Light-Grown *Chlamydomonas reinhardtii* Cells. W. Wang, D. Huang, D. Stachon, S.P. Grough & C.G. Kannangara. Plant Physiol. 74 (1984) 569-575.

Induction of δAminolevulinic Acid Dehydratase in Mouse Friend Virus-Transformed Erythroleukemia Cells During Erythroid Differentiation. C.S. Chang & S. Sassa. Blood 64, Nº 1 (1984) 64-70

Purification and Properties of L-Alanine: 4,5-dioxovalerate Aminotransferase from *Chlorella regularis*. Y. Shioi, M. Nagamine & T. Sasa. Archives of Biochemistry and Biophysics. 234, Nº 1 (1984) 117-124.

Studies on Porphyrin Metabolism in the Kidney. Effects of Trace Metals and Glutathione on Renal Uroporphyrinogen Decarboxilase. J.S. Woods, D.L. Eaton & C.B. Lukens. Molecular Pharmacology 36 (1984) 336-341.

Dra. Celia R. de Quirós
Dra. María del Carmen
Secretaria de Ciencias Básicas
Nonenzymatic heme formation in the presence of fatty acids and thiol reductants. S. Taketani & R. Tokunaga. Biochimica et Biophysica Acta. 798 (1984) 226-230.

Dra. ALICIA BATLLÉ de ALBERTON
Profesor Titular Q. Biológica

Detection of Increased δ -Aminolevulinic Acid in Urine. P.V. Tishler & S. H. Winston. Clin. Chem. 30, N°8 (1984) 1372-1373.

Prevention of Cyclical Attacks of Acute Intermittent Porphyria with a Long-Acting Agonist of Immature Hormone-Releasing Hormone. J. Anderson, I.M. Spitz, S. Sassa, C.W. Hardin & A. Kappas. The New England Journal of Medicine. 311 (1984) 643-645.

Control of Heme and Cytochrome P-450 Metabolism by Inorganic Metals, Organometals and Synthetic Metalloporphyrins. A. Kappas & G.S. Drummond. Environmental Health Perspectives. 57 (1984) 301-306.

Effects of Succinylacetone of Dimethylsulfoxide-Mediated Induction of Heme Pathway Enzymes in Mouse Friend Virus-Transformed Erythroleukemia Cells. C. Beaumont, J.C. Deybach, B. Grandchamp, V. Da Silva, H. De Verneuil & Y. Nordmann. Exp. Cell Res. 154 (1984) 474.

. Neuropharmacology of delta-aminolaevulinic Acid-I. Effect of Acute Administration in Rodents. S.R. Edwards, B.C. Shanley & J.A. Reynoldson. Neuropharmacology. 23 N°4 (1984) 477-481.

. Neuropharmacology of δ -Aminolaevulinic Acid.II. Effect of Chronic Administration in mice. S. Edwards, D. Jackson, J. Reynoldson & B. Shanley. Neuroscience Letters. 50 (1984) 169-173.

An association between increased porphyrin precursors and onset of abdominal symptoms in lead poisoning. (δ Aminolevulinic acid; coproporphyrin; constipation; lead exposure) Y. Okamoto & M. Kawai. Toxicology Letters. 21 (1984) 219-223.

Uroporphyrria development in cultured chick embryo fibroblasts long-term treated with chloramphenicol and ethidium bromide. J. de Muys & R. Moraes. FEBS Letters. 173 (1984) 142.

Separation of haem compounds by Reversed-Phase ion-pair high-performance liquid chromatography and its application in the assay of Ferrochelatase activity. A. Tangeras. Journal of Chromatography. 310 (1984) 31-39.

Síntesis de porfirinas en protozoarios. Recapitulación.

Effect of carbamazepine on haem biosynthesis in man. W.G. Rapoport, J.C. Connell, G.G. Thompson, M.R. Moore & M.J. Brodie. European Journal of Clinical Investigation. 14 (1984) 107-110.

The relationship between prenatal exposure to lead and Congenital Anomalies. JAMA. 251 (1984) 2956-2959.

Globos Tema de Recapitulación

Características fisiopatológicas de la hepatopatía en las Porfirias - Trabajo

Dra. ALCIRA BATLLE de ALBERTON
Profesor Titular Q. Biología