

REVISTA ESPAÑOLA DE FISILOGIA

Volume 33, 1977

CONTENTS

Num. 1

BARASTEGUI, C. A. — Motility of the Rat Ureter <i>in vitro</i> . Responses to Cholinergic Drugs	1
LÓPEZ-NOVOA, J. M., E. MARTÍNEZ-CONDE and A. FRAILE. — Spectrofluorometric Determination of Dopamine in Small Areas of Rat Brain	5
LÓPEZ-NOVOA, J. M., A. RENGEL, F. J. ORTEGA, J. L. RODICIO and L. HERNANDO. — Tubular Permeability Maintained in Post-Ischemic Acute Renal Failure	11
MONTILLA, P., M. C. BELLIDO, M. L. DORADO and R. MUÑOZ. — Effect of the Bilateral Olfactory Bulbs Removal on the Daily Fluctuations of the Plasmatic Corticosterone Levels	17
RODRÍGUEZ, F. J., J. SIMÓN and J. YÁJEYA. — Angiotensin II Effects on Plasmatic Renin Activity	21
GONZÁLEZ-EGUARAS, M., J. L. CASTILLO-OLIVARES, A. JUFFE, C. NOJEK, F. VILLAGRA, J. M. MAROÑAS and D. FIGUERA. — Osmolar and Free Water Clearance as Renal Function Test During Extracorporeal Circulation With Partial and Total Hemodilution	27
ESTELLER, A., F. LISBONA, E. MARTÍNEZ DE VICTORIA and A. MURILLO. — Some Aspects of Biliary Secretion in Four Species of Primates (<i>P. mandrillus</i> , <i>P. papio</i> , <i>E. patas</i> and <i>M. mulatta</i>)	31
HERRERA, J., J. SABATER and J. MOLINA. — Inhibition of Urease by Hypoglycaemic Drugs	37
GADEA-CIRIA, M. — Behavioural and Electroencephalographic Effects of Intracerebral Microinjections of Sodium Pentobarbital	41
SANTIAGO, E., R. PANIAGUA and N. LÓPEZ-MORATALIA. — Bicarbonate Stimulation of Mitochondrial ATPase. Effect of Physical Training	47
REY, C. and G. R. DiLEONE. — Response of Spleen Lymphocytes Shortly After Thymectomy in Adult Mouse	53
TAMARGO, J., J. SERRANO, P. GARCÍA DE JALÓN and F. DE ANDRÉS. — Alpha-Adrenergic Blockers on Ventricular Automatism in Rat Heart	63
<i>Letters to the Editors</i>	
GUIDI, E. E., M. C. BUYS, A. MADANES, C. MIRANDA, J. L. SCARO and M. A. CARRERA. — Influence of Ambient Temperature on Erythropoietin Production in Carbon Monoxide-Intoxicated Mice	67

DE OLIVEIRA E CRUZ, A., A. COELHO and E. DE PAIXAO. — Avitaminosis E and Thymus	69
BOOKS REVIEWS	71

Num. 2

QUESADA, T., J. E. CAMPILLO, C. GARCÍA DEL RÍO, J. OSORIO and F. ALBA. — Stimulation of Renin Release by Prostaglandin E ₂	79
ORTEGA, E., E. RUIZ, J. GÓMEZ and C. OSORIO. — A Simple Modification to the Radiochemical Assay of Cortisol which Avoids the Extraction from Serum	83
ORTEGA, E., E. RUIZ and C. OSORIO. — Physical Exercise as a Functional Test of HGH Secretion	87
FERNÁNDEZ, B. E., A. E. DOMÍNGUEZ and N. A. VIDAL. — Relation Between Urinary Catecholamines and Gonadotrophins and Sexual Hormones	91
GADEA-CIRIA, M. — Analogies and Differences Between Reserpine PGO Wave Discharges and Oculomotor Phasic Activity During Paradoxical Sleep in the Cat	97
GARCÍA-RAFANELL, J., M. A. LASUNCIÓN, J. MORELL and E. HERRERA. — Comparative Hypoglycemic and Hypoketonemic Effects of Tolbutamide and Glypentine in Rat	103
SAIZ, I., J. L. GONZÁLEZ DE ZÁRATE and A. VELASCO. — Effects of Dextro-propoxyphene on Oxidative Phosphorylation in Brain and Liver of Rat <i>in vitro</i>	109
RODICIO, J. L. and L. HERNANDO. — Effects and Interactions of Furosemide and Acetazolamide on Tubular Function in Rat Kidney	113
GARCÍA, M. D., L. CACICEDO and G. MORREALE DE ESCOBAR. — Validation of a Radioimmunoassay for Rat Thyrotrophic Hormone. II. Comparison with Results Obtained by Bioassay	119
EUGUI, J., C. GIL, J. C. GÓMEZ and J. SEGOVIA. — Protein Distribution in Submitochondrial Particles After Lipids Peroxidation	129
LLORENTE, N. and I. NÚÑEZ DE CASTRO. — Physiological Role of Yeasts NAD(P) ⁺ and NADP ⁺ -Linked Aldehyde Dehydrogenases	135
DEL RÍO, L. A., M. GÓMEZ and J. LÓPEZ-GORGÉ. — Catalase and Peroxidase Activities, Chlorophyll and Proteins During Storage of Pea Plants at Chilling Temperatures	143
<i>Letters to the Editors</i>	
LÓPEZ-NOVOA, J. M. and L. HERNANDO. — Papaverine Influence in Post-ischemic Acute Renal Failure	149
BOOKS REVIEWS	151

Num. 3

SANCHO, M. ^a J., J. M. MACARULLA and J. L. SEGOVIA. — Effect of Triiodo-tyronine on Liver Glycogen in <i>Gallus domesticus</i>	159
BUYS, M. ^a C., M. A. CARRERA, E. E. GUIDI, C. E. MIRANDA, A. R. ALVAREZ and J. L. SCARO. — Erythropoiesis in the Mouse Following	

Chronic Administration of Small Doses of Busulphan	163
VENTURA, M. ^a A. — Participation of the Nervous System in the Adrenal Cortical Response to Neurogenic Stress	169
ESCANERO, J. F. and O. ALDA. — Effect of the Overload of Sr ⁺⁺ and Ba ⁺⁺ on the Association of Ca ⁺⁺ , Mg ⁺⁺ and Pi With Total Proteins	177
RUIZ-REQUENA, R., F. GARRIDO, A. MARTÍN-ANDRÉS and C. OSORIO. — Studies on T Cells in Newborns. — Higher Reactivity of Umbilical Cord Blood Lymphocytes to PHA as Measured by Whole Blood Micro-technique	181
RUIZ, E., E. ORTEGA, E. SÁNCHEZ-CANTALEJO and C. OSORIO. — Serum Levels of Testosterone Follicle-Stimulating Hormone and Luteinizing Hormone in Normal Human Males	187
SANTIAGO, E., N. LÓPEZ-MORATALLA and M. ^a J. LÓPEZ-ZABALZA. — Glucose-6-Phosphatase Inactivation and Peroxidation of Phosphatidylcholine in Microsomal Membranes	191
SANTIAGO, E., N. LÓPEZ-MORATALLA, J. L. SEGOVIA and J. EUGUI. — NADH-Cytochrome c Reductase, Succinate Cytochrome c Reductase and Phospholipids	197
TRESGUERRES, J. A. F., M. C. FERNÁNDEZ-GALAZ, M. MARTÍNEZ-GUARRO and A. ORIOL-BOSCH. — Effect of Administering Prostaglandine F _{2α} and E ₂ on LH Secretion in Rat	205
VEGA, M. D. F., A. ESTELLER, G. VARELA and A. MURILLO. — Some Aspects of Vagal Control of Exocrine Pancreatic Secretion in Rabbits.	211
JUÁREZ, A., R. PARÉS and J. VIVES. — Effect of Methionine Sulfone on the Growth of <i>Citrobacter intermedium</i> C ₃	217
POLIDORO, J. H., A. F. HENRY, A. C. TAQUINI, Jr., and E. A. SAVINO. — Influence of the Ionic Environment on the Responses to Adrenaline and Potassium of the Isolated Rat Tail Artery	221
BERJÓN, A., R. JORDANA and F. PONZ. — Intestinal Absorption of Sugars and Amino Acids in the Earthworm	227
GARCÍA-BARRENECHEA, L. M., J. L. IGLESIAS, M. CABEZAS and J. A. CABEZAS. — Purification of Peroxidases and Separation of Isoperoxidases from Various Plant Species	233
GONZÁLEZ, J. and R. V. RIAL. — Electrophysiology of the Telencephalic Cortex in Reptiles (<i>Lacerta galloti</i>); EEG and Evoked Potentials . . .	239
BOOKS REVIEWS	249

Num. 4

CARRIÓN-ANGOSTO, A., M. SILVA-PANDO, S. RODRÍGUEZ-SEGADE and M. RUIZ-AMIL. — Oxidative Phase of Pentose-phosphate Cycle in Sea Mussel (<i>Mytilus edulis</i> L.) Tissues	265
PANIAGUA, R., J. J. VÁZQUEZ and N. LÓPEZ-MORATALLA. — Effects of Physical Training on Rat Myocardium. An Enzymatic and Ultrastructural Morphometric Study	273
ORTEGA, E., E. RUIZ, B. NEIRA and C. OSORIO. — Determination of Testosterone in Human Serum by Radiochemical Assay Without Previous Extraction	283

CASTILLO, F., F. F. DE LA ROSA and E. PALACIÁN. — Nitrate Reductase From <i>Spinacea oleracea</i> . FAD and the Reactivation of the Enzyme Treated with <i>p</i> -Hydroxymercuribenzoate	287
DÍAZ-CHICO, B. N. and J. C. DÍAZ-CHICO. — Effect of Hypothalamic Extracts and Synthetic LH-RH on Proteic Synthesis by Ray Hypothalamus <i>in vitro</i>	291
IBORRA, J. L., F. I. LLORCA, R. F. PASTOR and J. V. GARCÍA. — Selective Photooxidation of Methionine, Tyrosine and Tryptophane Using Thionine and Toluidine Blue as Sensitizers	297
ANDÚJAR, M. M., M. P. NAVARRO and G. VARELA. — The Effect of Ca/P Relation on Utilization of Both Nutrients in Laying Quails	305
CASTIÑEIRAS, M. J., J. J. GUINOVART, E. ITARTE and M. ROSELL-PÉREZ. — Seasonal Variations in Frog Liver Glycogen Metabolism	311
MAROÑAS, J. M., F. VILLAGRA, J. L. CASTILLO-OLIVARES, M. GONZÁLEZ-EGUARAS, A. IGLESIAS and D. FIGUERA. — Experimental Cardiogenic Shock	317
MARTÍNEZ, J. M., M. LLOBERA, M. CORNELLÀ and E. HERRERA. — Effects of Hypo and Hyperthyroidism on the Response to Glucose Loading of Blood Glucose, Ketones and Insulin and Liver Glycogen as Studied in the Fasted Rat	323
GOÑI, F. M., J. C. GÓMEZ and E. SANTIAGO. — Highly Polar Non-Glycerol Containing Lipids Present in Outer Mitochondrial Membranes	331
GÓMEZ, J. C., M. A. VENTURA, F. M. GOÑI and E. SANTIAGO. — An Index of Protein Hydrophobicity. Its Application to Membrane Proteins	337
RUILOPE, L. M., R. GARCÍA-ROBLES, E. MANCHEÑO, F. J. RODRÍGUEZ, A. BARRIENTOS, J. TORRES, J. L. RODICIO and A. ORIOL-BOSCH. — Response of Plasma Aldosterone to Orthostatism During Follicular and Luteal Phases of the Normal Menstrual Cycle	341
FRASQUET, M. ^a I., P. TINEO, J. VIÑA-RIBES and V. ANTÓN. — Experimental Study of a New Antialoxanic Agent	347
BOOKS REVIEWS	349

REVISTA ESPAÑOLA DE FISIOLOGIA

VOLUMEN 33, 1977

INDICE

Núm. 1

BARASTEGUI, C. A. — Motility of the Rat Ureter <i>in vitro</i> . Responses to Cholinergic Drugs	1
LÓPEZ-NOVOA, J. M., E. MARTÍNEZ-CONDE y A. FRAILE. — Valoración espectrofluorométrica de dopamina en pequeñas áreas de cerebro de rata.	5
LÓPEZ-NOVOA, J. M., M. A. RENGEL, F. J. ORTEGA, J. L. RODICIO y L. HERNANDO. — Permeabilidad tubular conservada en la insuficiencia renal aguda postisquémica	11
MONTILLA, P., M. C. BELLIDO, M. L. DORADO y R. MUÑOZ. — Influencia de la extirpación bilateral de bulbos olfatorios sobre las fluctuaciones diarias de los niveles de corticosterona plasmática	17
RODRÍGUEZ, F. J., J. SIMÓN and J. YAJEYA. — Angiotensin II Effects on Plasmatic Renin Activity	21
GONZÁLEZ-EGUARAS, M., J. L. CASTILLO-OLIVARES, A. JUFFE, C. NOJEK, F. VILLAGRA, J. M. MAROÑAS y D. FIGUERA. — Aclaramiento osmolar y de agua libre como prueba de función renal durante la circulación extracorpórea con hemodilución parcial y total	27
ESTELLER, A., F. LISBONA, E. MARTÍNEZ DE VICTORIA y A. MURILLO. — Algunos aspectos de la secreción biliar en cuatro especies de Primates (<i>P. mandrillus</i> , <i>P. papio</i> , <i>M. mulatta</i> , <i>E. patas</i>)	31
HERRERA, J., J. SABATER y J. MOLINA. — Inhibición de la ureasa por fármacos hipoglucemiantes derivados de la sulfonilurea	37
GADEA-CIRIA, M. — Behavioural and Electroencephalographic Effects of Intracerebral Microinjections of Sodium Pentobarbital	41
SANTIAGO, E., R. PANIAGUA and N. LÓPEZ-MORATALLA. — Bicarbonate Stimulation of Mitochondrial ATPase. Effect of Physical Training	47
REY, C. and G. R. DiLEONE. — Response of Spleen Lymphocytes Shortly After Thymectomy in Adult Mouse	53
TAMARGO, J., J. SERRANO, P. GARCÍA DE JALÓN and F. DE ANDRÉS. — Alpha-Adrenergic Blockers on Ventricular Automatism in Rat Heart	63
<i>Cartas al Editor</i>	
GUIDI, E. E., M. C. BUYS, A. MADANES, C. MIRANDA, J. L. SCARO and M. A. CARRERA. — Influence of Ambient Temperature on Erythropoietin Production in Carbon Monoxide-Intoxicated Mice	67

DE OLIVEIRA E CRUZ, A., A. COELHO and E. DE PAIXAO. — Avitaminosis E and Thymus	69
CRÍTICA DE LIBROS	71

Núm. 2

QUESADA, T., J. E. CAMPILLO, C. GARCÍA DEL RÍO, J. OSORIO and F. ALBA. — Stimulation of Renin Release by Prostaglandin E ₂	79
ORTEGA, E., E. RUIZ, J. GÓMEZ and C. OSORIO. — A Simple Modification to the Radiochemical Assay of Cortisol which Avoids the Extraction from Serum	83
ORTEGA, E., E. RUIZ y C. OSORIO. — El ejercicio físico como prueba funcional de la secreción de hormona de crecimiento	87
FERNÁNDEZ, B. E., A. E. DOMÍNGUEZ y N. A. VIDAL. — Relación de las catecolaminas urinarias con las gonadotrofinas y las hormonas sexuales. GADEA-CIRIA, M. — Analogies and Differences Between Reserpine PGO Wave Discharges and Oculomotor Phasic Activity During Paradoxical Sleep in the Cat	91
GARCÍA-RAFANELL, J., M. A. LASUNCIÓN, J. MORELL and E. HERRERA. — Comparative Hypoglycemic and Hypoketonemic Effects of Tolbutamide and Glypentine in Rat	97
SAIZ, I., J. L. GONZÁLEZ DE ZÁRATE y A. VELASCO. — Efecto del dextro-propoxifeno sobre el consumo de oxígeno y fosforilización oxidativa de cerebro e hígado de rata <i>in vitro</i>	103
RODICIO, J. L. and L. HERNANDO. — Effects and Interactions of Furosemide and Acetazolamide on Tubular Function in Rat Kidney	109
GARCÍA, M. D., L. CACICEDO and G. MORREALE DE ESCOBAR. — Validation of a Radioimmunoassay for Rat Thyrotrophic Hormone. II. Comparison with Results Obtained by Bioassay	113
EUGUI, J., C. GIL, J. C. GÓMEZ and J. SEGOVIA. — Protein Distribution in Submitochondrial Particles After Lipids Peroxidation	119
LORENTE, N. and I. NÚÑEZ DE CASTRO. — Physiological Role of Yeasts NAD(P) ⁺ and NADP ⁺ -Linked Aldehyde Dehydrogenases	129
DEL RÍO, L. A., M. GÓMEZ and J. LÓPEZ-GORGÉ. — Catalase and Peroxidase Activities, Chlorophyll and Proteins During Storage of Pea Plants at Chilling Temperatures	135
<i>Carta al Editor</i>	143
LÓPEZ-NOVOA, J. M. and L. HERNANDO. — Papaverine Influence in Post-ischemic Acute Renal Failure	149
CRÍTICA DE LIBROS	151

Núm. 3

SANCHO, M. ^a J., J. M. MACARULLA y J. L. SEGOVIA. — Efecto de la triyodotironina sobre el glucógeno hepático en <i>Gallus domesticus</i>	159
BUYS, M. ^a C., M. A. CARRERA, E. E. GUIDI, C. E. MIRANDA, A. R. ALVAREZ y J. L. SCARO. — Hematopoiesis en el ratón después de la administración de Busulfán	163

VENTURA, M. ^a A. — Participation of the Nervous System in the Adrenal Cortical Response to Neurogenic Stress	169
ESCANERO, J. F. y O. ALDA. — Efecto de la sobrecarga <i>in vitro</i> de Sr ⁺⁺ y Ba ⁺⁺ sobre la asociación de Ca ⁺⁺ , Mg ⁺⁺ y Pi a proteínas totales . . .	177
RUIZ-REQUENA, R., F. GARRIDO, A. MARTÍN-ANDRÉS and C. OSORIO. — Studies on T Cells in Newborns. — Higher Reactivity of Umbilical Cord Blood Lymphocytes to PHA as Measured by Whole Blood Microtechnique	181
RUIZ, E., E. ORTEGA, E. SÁNCHEZ-CANTALEJO y C. OSORIO. — Concentraciones de testosterona, hormona foliculo estimulante y hormona luteinizante en suero humano normal	187
SANTIAGO, E., N. LÓPEZ-MORATALLA and M. ^a J. LÓPEZ-ZABALZA. — Glucose-6-Phosphatase Inactivation and Peroxidation of Phosphatidylcholine in Microsomal Membranes	191
SANTIAGO, E., N. LÓPEZ-MORATALLA, J. L. SEGOVIA and J. EUGUI. — NADH-Cytochrome c Reductase, Succinate Cytochrome c Reductase and Phospholipids	197
TRESGUERRES, J. A. F., M. C. FERNÁNDEZ-GALAZ, M. MARTÍNEZ-GUARRO y A. ORIOL-BOSCH. — Efecto de la administración de prostaglandina F ₂₂ y E ₂ sobre la secreción de LH en la rata	205
VEGA, M. D. F., A. ESTELLER, G. VARELA y A. MURILLO. — Algunos aspectos del control vagal de la secreción pancreática exocrina en conejos.	211
JUÁREZ, A., R. PARÉS y J. VIVES. — Efecto de la metionina sulfona sobre el crecimiento de <i>Citrobacter intermedius</i> C ₃	217
POLIDORO, J. H., A. F. HENRY, A. C. TAQUINI, Jr., and E. A. SAVINO. — Influence of the Ionic Environment on the Responses to Adrenaline and Potassium of the Isolated Rat Tail Artery	221
BERJÓN, A., R. JORDANA and F. PONZ. — Intestinal Absorption of Sugars and Amino Acids in the Earthworm	227
GARCÍA-BARRENECHEA, L. M., J. L. IGLESIAS, M. CABEZAS y J. A. CABEZAS. Purificación de peroxidasas y separación de isoperoxidasas a partir de varios materiales vegetales	233
GONZÁLEZ, J. y R. V. RIAL. — Electrofisiología de la corteza telencefálica de reptiles (<i>Lacerta galloti</i>); EEG y potenciales evocados	239
CRÍTICAS DE LIBROS	249

Núm. 4

CARRIÓN-ANGOSTO, A., M. SILVA-PANDO, S. RODRÍGUEZ-SEGADE y M. RUIZ-AMIL. — Fase oxidativa de la ruta de las pentosas en diversos tejidos de mejillón, <i>Mytilus edulis</i> L.	265
PANIAGUA, R., J. J. VÁZQUEZ and N. LÓPEZ-MORATALLA. — Effects of Physical Training on Rat Myocardium. An Enzymatic and Ultrastructural Morphometric Study	273
ORTEGA, E., E. RUIZ, B. NEIRA y C. OSORIO. — Determinación de testosterona en suero por radioinmunoanálisis sin extracción previa	283
CASTILLO, F., F. F. DE LA ROSA and E. PALACIÁN. — Nitrate Reductase From <i>Spinacea oleracea</i> . FAD and the Reactivation of the Enzyme Treated with <i>p</i> -Hydroxymercuribenzoate	287

DÍAZ-CHICO, B. N. y J. C. DÍAZ-CHICO. — Efecto de extractos hipotalámicos y de la hormona liberadora de la luteinizante (LH-RH) sobre la síntesis proteica por hipófisis de rata <i>in vitro</i>	291
IBORRA, J. L., F. I. LLORCA, R. F. PASTOR y J. V. GARCÍA. — Fotooxidación selectiva de metionina, tirosina y triptófano utilizando tionina y azul de toluidina como fotosensibilizadores	297
ANDÚJAR, M. M., M. P. NAVARRO y G. VARELA. — Influencia de la relación Ca/P sobre la utilización de ambos nutrientes en la codorniz en puesta	305
CASTIÑEIRAS, M. J., J. J. GUINOVART, E. ÍTARTE y M. ROSELL-PÉREZ. — Variaciones estacionales en el metabolismo hepático del glucógeno en la rana	311
MAROÑAS, J. M., F. VILLAGRA, J. L. CASTILLO-OLIVARES, M. GONZÁLEZ-EGUARAS, A. IGLESIAS y D. FIGUERA. — Shock cardígeno experimental.	317
MARTÍNEZ, J. M., M. LLOBERA, M. CORNELLÀ and E. HERRERA. — Effects of Hypo and Hyperthyroidism on the Response to Glucose Loading of Blood Glucose, Ketones and Insulin and Liver Glycogen as Studied in the Fasted Rat	323
GOÑI, F. M., J. C. GÓMEZ and E. SANTIAGO. — Highly Polar Non-Glycerol Containing Lipids Present in Outer Mitochondrial Membranes	331
GÓMEZ, J. C., M. A. VENTURA, F. M. GOÑI and E. SANTIAGO. — An Index of Protein Hydrophobicity. Its Application to Membrane Proteins	337
RUILOPE, L. M., R. GARCÍA-ROBLES, E. MANCHEÑO, F. J. RODRÍGUEZ, A. BARRIENTOS, J. TORRES, J. L. RODICIO and A. ORIOL-BOSCH. — Response of Plasma Aldosterone to Orthostatism During Follicular and Luteal Phases of the Normal Menstrual Cycle	341
FRASQUET, M. ^a I., P. TINEO, J. VIÑA-RIBES y V. ANTÓN. — Estudio experimental de un nuevo agente antialoxánico	347
CRÍTICA DE LIBROS	349