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Antiinfectives - new and known non-synthetic compounds

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ANTIMICROBIAL ACTIVITIES OF SOME TETRAHYDRONAPTHALENE-BENZIMIDAZOLE DERIVATIVES. **Z. ATEŞ-ALAGÖZ** 1 , S. YILDIZ 2 , E. BÜYÜKBİNGÖL 1 037

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057 Novel Pyrazole derivatives as Anti-inflammatory-Antibacterial Agents; Synthesis and Optimum Dosing in Experimental

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New Targets for Salmonella Treatment: RpoE Regulon of Salmonella typhimurium. 271 KORMANEC J¹, MITICKA H¹, ROWLEY G², REZUCHOVA B¹, ROBERTS M²

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503 Titanium Plate Anodized by Discharging in NaCl Solution Exhibits Antibacterial Activity against Oral Bacteria. SHIBATA Y. 1, TAKASHIMA H. 1, MIYAZAKI T.

¹Department of Oral Biomaterials and Technology, Showa University School of Dentistry, Tokyo, Japan.

Synthesis and Antimicrobial Activities of Some New Flavonyl Pro-drug Esters of Ampicillin. **CEYLAN-ÜNLÜSOY M** a , ALTANLAR N b , ERTAN R a 088

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SYNTHESIS AND POTENT ANTIMICROBIAL ACTIVITY OF SOME NOVEL 4-(5,6-DICHLORO-1H-BENZIMIDAZOL-2-396 YL)-N-SUBSTITUTED BENZAMIDES.

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007 Synthesis and Biological Activity of CMP-KDO Synthetase Inhibitors in Lipopolysaccaride Biosynthesis of Gram-negative

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Structure and Blood Schizontocidal Activity of Various Analogues of Lumefantrine in Plasmodium falciparum, in vitro. 590

Woitsch B¹, **Wernsdorfer WH**^{1,4}, Allmendinger T², Sirichaisinthop J³, Wernsdorfer G⁴

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490 Effectiveness of "Quinoxaline derivatives" in vitro against Mycobacterium tuberculosis and non tubercolous Mycobacteria strains.

Sechi LA., Pinna A.,* Deriu A., Molicotti P., Carta A., Paglietti G., Zanetti S

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°Department of Chemistry, University of Sassari.

Zalcitabine (ddC) Induces Cellular Resistance Affecting its Antiviral Activity. 011

AGARWAL RP, SARKAR M, HAN T

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SYNTHESIS AND POTENT ANTIMICROBIAL ACTIVITY OF SOME NOVEL ALKYL 1H-BENZIMIDAZOLE-5-167 CARBOXYLATES CARRYING AMIDE AND AMIDINES.

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190 Effect of Nitric Oxide Synthase Inhibitors in Schistosoma japonicum Infection: Killing Effect of D-NAME.

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EL-ENSHASY, H.A.¹; FARID, M.A.²; EL-DIWANY, A.I.² AND EL-SAYED, E.A.³

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Antibiotic Resistance of staphylococcus aureus Isolated from an Aquatic Environment in Lebanon.

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Antimicrobial Activity of Essential Oils of Nigella sativa and Artemisia sieberi.

MOHAMMAD JALALI, DARYOUSH ABEDI, GHANNADI ALI REZA MOHAMMAD REZA BAGHJERINEJAD Isfahan University of Medical Sciences.

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Investigation of Antibacterial Potentiality of Methanol Extraction from Fungus Ganoderma applanatum. **Mohammad-Fata Moradali**^a, Hossien Mostafavi ^b, Ghorban- Ali Hejaroude^a Mehrdad Abbasi^c, Shirin. Ghods^a and Ali

^aPlant Protection Dept., Faculty of Agriculture, Tehran University, Karaj, Iran, ^bNational Research Center of Genetic Engineering and Biotechnology, Tehran, Iran, ^cPlant Pest & Diseases Research Institute, Tehran, Iran, ^dResearch Institute of Forests & Rangelands.

ANTILISTERIAL ACTIVITY OF BALLOTA SPECIES GROWING IN TURKEY. 021

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Antifungal Flavonoid Triglycosides: Importance of the Glycosydic Haptophoric Part in Determining the Biological Activity. **CURIR P** 1 , DOLCI M 2 , LANZOTTI V 3 111

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327 In Vitro Growth Inhibition of Dermatophytes by Some Strains of Bacillus subtilis.

MELENTIEV Al¹, MUCHAMADEEVA OR², GALIMZYANOVA NF¹, KUZMINA LYu¹, YAKOVLEVA OV¹ Institute of Biology, Ufa Research Center RAS, Ufa, Russia; ²Ufa Dermatovenereologic Clinic, Ufa, Russia.

371 ANTIFUNGAL ACTIVITY OF Chromolaena odorata (L.) King & Robinson (Asteraceae) OF CAMEROON. **A. NGONO NGANE**^a, F. NDIFOR^a, R. EBELLE ETAME^a, L. BIYITI^b, P. H. AMVAM ZÓLLO^b & Ph. BOUCHET^c ^aLaboratoire de Biochimie - Faculté des Sciences Douala - Cameroun.

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- 224 Anti-papilloma viral activity of *Trichosanthes cucurmerina* root. KONGTUN S¹, **JIRATCHARIYAKUL W**¹, KUNACHAK S², FRAHM AW³, KANCHALA UTID²

 ¹Faculty of Pharmacy, Mahidol University, Bangkok, Thailand; ² Faculty of Medicine, Ramathibodi Hospital, Mahidol University, Bangkok, Thailand: ³Institute of Pharmacy, Freiburg University, Freiburg, Germany,
- 422 In Vitro and In Vivo Evaluation of the Anti-prionic Activity of Newly Synthesized Congo Red Derivatives. Poli G^{1,3}, Bareggi SR^{2,3}, Ponti W^{1,3} ¹Dept. of Animal Pathology, Hygiene and Veterinary Public Health; ²Dept. of Pharmacology; ³Center of Excellence on Neurodegenerative Diseases, Milan, Italy.
- 038 Antimicrobial and antiparasitic activity induced by Origanum minutiflorum and Angelica sinensis (Umbelliferae) essential oils, respectively, in Mediterranean aquaculture.
 F. ATHANASSOPOULOU*, E. KARAGOUNI** and J. PAPPAS***

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 - CMR Virus Unit, ID & BG Hospital, Kolkata, India.
- Studies on the Synthesis of Some New Flavone Derivatives. 087 CEYLAN-ÜNLÜSOY Mª, BOZDAĞ-DÜNDAR Oª, ALTANLAR N b, ERTAN Rª Ankara University, Faculty of Pharmacy, Departments of ^aPharmaceutical Chemistry, ^bMicrobiology, Tandoğan, Ankara,
- 039 NEW RESEARCH ON TREATMENTS FOR PARASITIC DISEASE IN MEDITERRANEAN AQUACULTURE. F. ATHANASSOPOULOU*, I. S. PAPPAS***, E. KARAGOUNI** *Laboratory of Ichthyology & Fish Pathology and **Laboratory of Pharmacology and Toxicology, Faculty of Veterinary Medicine, University of Thessaly, Karditsa, Greece, ***Laboratory of Cellular Immunology, Institut Pasteur Hellenique, Athens Greece
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Ruthenium and Palladium Complexes with Planar Ligands. DNA Binding Study and biological activity against Leishmania mexicana.

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- ²National Center of Infectious and Parasitic Diseases, Sofia, Bulgaria.
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Treatment of Experimental Meningitis by Multidrug-Resistant Pseudomonas aeruginosa with Imipenem: Benefits From 657 The Co-administration of Dexamethazone?.

K. PAPAPETROU¹, G. LAOUTARIS², E. J. GIAMARELLOS-BOURBOULIS², T. TSAGANOS², F. BAZIAKA², D. SAKAS², H. GIAMARELLOU.

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THE EFFECTIVENESS OF FLUOROQUINOLONES IN OPHTHALMOLOGY. HANIOGLU KARGI \mathbf{S}^1 , UGURBAS \mathbf{SH}^1 181

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¹Medical University of Lodz, Lodz, Poland.

CONTINUOUS VERSUS INTERMITTENT BOLUS ADMINISTRATION OF IMIPENEM IN CRITICALLY ILL PATIENTS 467 WITH PNEUMONIA.

Sakka SG¹, Glauner A¹, Bulitta J², Kinzig-Schippers M², Sörgel F²

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Histopathologic Examination For Helicobacter Pylori As A Possible Etiopathogenic Factor In Laryngeal Carcinoma. 259 Ahmet Kizilay¹, Levent Saydam², Abdullah Aydin³, M. Tayyar Kalcioglu⁴, Orhan Ozturan⁵, N. Engin Aydin⁶ 1.4.5 Department of Otolaryngology; ⁵Department of Pathology; Inonu University Medical School, Malatya, ²Department of Otolaryngology, Bayindir Medical Center, Ankara; ³Department of Pathology, Gaziantep University Medical School; Gaziantep, TURKEY.

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SHARMA JB, MITTAL S

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SKERK V¹, MAREKOVIC I², MARKOVINOVIC L¹, BEGOVAC J¹, SKERK V³, BARSIC N³, MAJDAK-GLUHINIC V¹ ¹University Hospital for Infectious Diseases "Dr. Fran Mihaljević", Zagreb, Croatia; ²Jordanovac" University Hospital for Lung Diseases, Zagreb, Croatia; ³Medical faculty, University of Zagreb, Croatia.

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WEBER-DABROWSKÁ B¹, BORÁTYŃSKA M², KLINGER M², LORENZ J³, ŁUSIAK-SZELACHOWSKA M¹, GÓRSKI **A**^{1,4}.
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Long term antibiotic treatment of acute pyelonephritis: reduction of scar formation. COLLA L^1 , BURDESE M^1 , MEZZA E^1 , MARCUCCIO C^1 , MESIANO P^1 , GIRAUDI R^1 , MARENGO M^1 , CONSIGLIO V^1 , VERAS TAVAREZ J^1 , BESSO L^1 , SEGOLONI GP^1 , **PICCOLI GB**¹. Chair of Nephrology, Internal Medicine Department, University of Turin - Italy.

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Ampicillin / Sulbactam in Comparison with Ceftriaxon for Pneunomia in a Medical ICU. **Kibbel T** ¹, Süfke S ¹, Fröhlich A ², Dodt C ¹, Djonlagic H ¹ Internal Medicine I, Intensive Care Unit, University Clinic of Schleswig-Holstein, Campus Luebeck

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¹Zardi EM. ¹Picardi A. ¹Afeltra A

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- 329 Prospective study of empiric monotherapy with ceftazidime for low-risk grade IV febrile neutropenia after cytotoxic chemotherapy in cancer patients.
 - Pnina Chernobelsky¹, Konstantin Lavrenkov¹, Klaris Riesenberg², Samuel Ariad¹, Doron Rimar², Francisc Schlaeffer², and Wilmosh Mermershtain
 - Dept. of Oncology¹ and Dept. of Internal Medicine E², Soroka University Medical Center, Faculty of Health Sciences, Ben Gurion University of the Negev, Beer Sheva, Israel.
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- 398 Efficacy of Ceftazidime (CTZ) plus Clavulanic acid (CA) against ESBL Producing Gram-negative Bacteria (GNB). SUNITA MALHOTRA, T. MATHUR, S.SINGHAL, M. PANDYA, P.BHATEJA, T. BHADAURIYA, E.P.MADHVI RAO. SACHIN MALHOTRA, D.J.UPADHYAY, A.RATTAN Ranbaxy Research Laboratories, Gurgaon, Haryana, India.
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- ¹Department of Paediatrics and Child Health and ²Department of Neurosurgery, Stellenbosch University and Tygerberg Hospital, Cape Town, South Africa; ³Department of Neurosurgery, Red Cross Children's Hospital, Cape Town, South Africa.
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 - ONDA M1, ISE Y2, HAGIWARA K2, KAMEI M4, KATAYAMA S2, NISHIZAWA K2, HIRANO M2, KIYAMA T3 ¹Hiroshima International University, Hiroshima, Japan; ²Nippon Medical School Hospital, Tokyo, Japan; ³Nippon Medical School, Tokyo, Japan; ⁴Nihon University, Chiba, Japan.
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- Review On Human Toxoplasmosis: The Past, Present And Prospective Future. 379 NISSAPATORN VEERANOOT¹, QUEK KIA FATT², MAHMUD ROHELA¹, ABDULLAH KHAIRUL ANUAR¹ ¹Department of Parasitology, University of Malaya Medical Centre, Kuala Lumpur, Malaysia. ²Department of Social and Preventive Medicine, University of Malaya Medical Centre, Kuala Lumpur, Malaysia.
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 - ¹ The Chinese University of Hong Kong, the Prince of Wales Hospital, Hong Kong SAR, China.
- 228 Therapeutic effect of 2-days vs. 3-days treatment of shigellosis with Ciprofloxacin in Albania. KALO T¹ DAVACHI F², NUSHI A¹, BOJDANI R¹, BEQO E¹, PRIFTI S¹, FEJZO E¹, NOVI S¹ ¹Mother Theresa University Hospital Center, Tirana, Albania, ²New York Medical College, Valhalla, New York.

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The Cost-Benefit of Therapy with Ganciclovir for Perinatal Cytomegalovirus Hepatitis. VANČÍKOVÁ Z

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Relationship of Depression and Quality of Life in Interferon receiving Chronic Hepatitis Patients. Aytul Corapcioglu¹, **Sila Cetin Akhan**², Gulturk Koroglu¹, Mine Ozkan³

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Clinical Pharmacokinetics of Adefovir Dipivoxil after Single and Multiple Oral Administration to Chinese Volunteers 620 CHEN XY and ZHONG DF Laboratory of Drug Metabolism and Pharmacokinetics, Shenyang Pharmaceutical University, Shenyang, China.

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634 Three-Year Results of an In-Home Palivizumab Prophylaxis Program for the Prevention of Respiratory Syncytial Virus Infection

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Category: Antifungals - clinical studies

A Possible Treatment for Oral Candidosis or Pressure Sores, Using Anti-inflammatory Naphthoguinone derivatives with Antifungal Activity Isolated from Lithospermum erythrorhizon.

SASAKI K¹, Abe H², Yoshizaki F

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Armed Forces Hospital, Riyadh, Saudi Arabia.

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DAVACHI F

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- Pharmacokinetic and average bioequivalence study of levofloxacin tablets in healthy Thai male volunteers. 492 SERMSAPPASUK P, RUANGBANDIT T, POLNOK S, JIANMONGKOL P, INGKANINAN K, LOHITNAVY M ¹Bioequivalence Test Center, Faculty of Pharmaceutical Sciences, Naresuan University, Phitsanulok, Thailand
- Clearance of Levofloxacin by Continuous-Veno-Venous-Hemodialysis (CVVHD): Influence of Dialyser Membrane and 643 Dialysate Flow Rate - Implication for Dosing? SIEWERT S, DREWELOW B, MUELLER SC
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Concentrations in Plasma and Urinary Excretion of Ciprofloxacin XR (1000 mg) versus Levofloxacin (500 mg) in Healthy 579 Volunteers Receiving a Single Oral Dose.

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Limitations in the Use of Drug Cocktails (DC) to Compare the Pharmacokinetics (PK) of Drugs: Ciprofloxacin (CIP) vs. 213 Levofloxacin (LEV).

NABER KG², BULÍTTA J¹, **JAKOB V¹**, KINZIG-SCHIPPERS M¹, SÖRGEL F¹

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Self-Inhibition of Clarithromycin's (CLA) Metabolism in Humans at Steady-state. 081 **BULITTA J**¹, HORKOVICS-KOVATS S², BOREK M², HÜTTNER S¹, KINZIG-SCHIPPERS M¹, SÖRGEL F¹ Institute for Biomedical and Pharmaceutical Research, Nürnberg, Germany; ²Sandoz, Kundl, Austria.

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Department of Pharmacology, Facultad de Ciencias Veterinarias, Universidad Nacional de La Plata.

005 PHARMACOKINETICS OF IMIPENEM IN SHEEP WITH SPECIAL REFERENCES TO IT'S HEPATO-RENAL **FFFFCTS**

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242 Comparison of the Pharmacokinetics of Piperacillin and Sulbactam during Intermittent and Continuous Intravenous Administration.

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Plasma Concentrations, Urinary Excretion and Bactericidal Activity of Linezolid (LIN) (600mg) versus Ciprofloxacin (CIP) 255 (500mg) in Healthy Volunteers After a Single Oral Dose.

WAGENLEHNER F¹, NABER KG¹, KINZIĞ-SCHIPPERS M², BULITTA J², SÖRGEL F²

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Multicompartment Pharmacokinetic Models with Enterohepatic Circulation (EHC) and Remetabolization (RM). 622 **ZLATOŠ P**¹, HORKOVICS-KOVATS S²

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Pharmacokinetic simulation of two formulations of amphotericin-B. **ARIANO RE** 1,2 , ZELENITSKY SA 1,2 029

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¹Essen University Hospital, Essen, Germany; ²Medical School Hannover, Hannover, Germany; ³KfH Kidney Centre Essen, Essen, Germany; ⁴Clinic of Internal Medicine, Zell am See, Austria

241 Comparison of the Pharmacokinetics of Meropenem during Intermittent and Continuous Intravenous Application in Patients with Renal Failure Treated by Continuous Renal Replacement Therapy.

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BIELECKA-GRZELA S., KLIMOWICZ A.

Dermatopharmacotherapy Division, Department of Dermatology and Venereology, Pomeranian Medical University, Szczecin, Poland.

Human Microdialysis: Urea as an Endogenous Reference Compound to Determine Relative Recovery of Drugs. SCHWALBE $O^{1,2}$, BUERGER C^1 , PLOCK N^1 , **SCHEERANS C^1**, KLOFT C^1 478 ¹Freie Universitaet Berlin, Institute of Pharmacy, Berlin, Germany; ²Universitaet Bonn, Bonn, Germany.

416 Special Characteristics of Microdialysis with Vancomycin - pH Dependence of Microdialysis Recovery. PLOCK N. KLOFT C

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Tissue Pharmacokinetics of Linezolid Assessed by Microdialysis. 417 BUERGER C¹, **PLOCK N**¹, JOUKHADAR C², MUELLER M², KLOFT C¹ ¹Freie Universitaet Berlin, Institute of Pharmacy, Berlin, Germany; ²University School of Medicine, Vienna, Austria.

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583 The Effect of Liposomal Surface Charge on the Disposition of Liposome-Encapsulated Gentamicin to the Rat Liver, Brain, Lungs and Kidneys after Intraperitoneal Administration. A. ABRAHAM AND A. WALUBO

Department of Pharmacology, University of the Free State, South Africa.

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SWOBODA S¹, OBERDORFER K¹, KLEE F², GEISS HK¹, HOPPE-TICHY T¹ University of Heidelberg, Germany; ²Salem Hospital, Heidelberg, Germany.

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RODAMER M¹, LANDERSDORFER C¹, JAKOB V¹, SKOTT A¹, HINDER M², KINZIG-SCHIPPERS M¹, SÖRGEL F¹

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LANDERSDORFER C¹, SKOTT A¹, KINZIG-SCHIPPERS M¹, HOLZGRABE U², SÖRGEL F¹

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BAFELTOWSKA JJ1, BUSZMAN E1

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Population Pharmacokinetics of Gentamicin in Neonates. $\textbf{BARCIA E}^1$, GARCIA \textbf{B}^2 , PEREZ \textbf{F}^2 , MOLINA \textbf{IT}^1 050

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- 447 Personalized Isoniazid (INH) Dosing Based on Genotyping for Arylamine N-Acetyltransferase Type 2 (NAT2). RODAMER M¹, FUHR U², TOMALIK-SCHARTE D², JETTER A², BULITTA J¹, KINZIG-SCHIPPERS M¹, SÖRGEL F¹ ¹Institute for Biomedical and Pharmaceutical Research, Nürnberg; ²Inst. of Pharmacology, Univ. of Köln, Köln, Germany.
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 Departments of Biochemistry¹ and Oncology², The Childrens Hospital at Westmead, NSW, Australia; 3 Faculty of 360 Pharmacy, University of Sydney, NSW, Australia.

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Bichat University, Masson, France.

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473 Comparative studies on pulse and continuous oral norfloxacin treatment in broilers and turkeys.

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Filarial research unit, Centre International de Recherche Médicales de Franceville (CIRMF), Gabon.

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055 Bactericidal activity of oral antibiotics in ex vivo model.

BEDENIC B¹, TOPIC M²

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Targeted Novel Therapeutics for Dental Biofilms. ${f GAFFAR\ A}^1$, BOYD ${f T}^1$, SREENIVASAN ${f P}^1$ 649

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SUNITA MALHOTRA, T. BHADAURIYA, E.P.MADHVI RAO, SONALI KAKKAR, J.K.PALIWAL A.RATTAN Ranbaxy Research Laboratories, Gurgaon, Haryana, India.

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DRANDARSKA I¹, KUSSOVŠKI V², NIKOLAEVA S¹, **MARKOVA N²**¹ NCIPD, Sofia, Bulgaria

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Complete Remission after Treatment of Chronic Fatigue Syndrome (CFS) in 118 Falcons using Potassium Arsenite 0.05%

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Antimicrobial Activity of Ciprofoxacin Against Nosocomial Infection Bacteria. 219 ABSS ALI JAVADI, MOHAMMAD JALALI, SINA MOBASHERI, ALI FARZAM

Isfahan University of Medical Sciences.

Epidemiology and Antibiotic Susceptibility of Strictly Anaerobic Bacteria Isolated from Patients Hospitalized in a Tertiary Care Hospital

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Department of Medical Microbiology, Medical University of Warsaw, Poland.

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University of Occupational and Environmental Health, Kitakyushu, Japan.

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Susceptibility of Different MRSA Clones to Metals and Biocides. 016

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436 Comparison between molecular epidemiology, geographical region and drug resistance in Mycobacterium tuberculosis strain isolated from Iranian and Afghan patients.

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351A Inhibition of Treponema enzymes with Salvarsan and derivatives

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497 Studies on Antimicrobial Activities of Berberis aristata DC., a Medicinal Plant Species of the Himalayas and Nilgiris Hills in India

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Drug resistance to ABC transporter blockers modulates glucose transport in *Leishmania*. Machuca, C. 2 , Rodríguez, A. 2 , Herrera, M. 2 and **Ponte-Sucre, A** 1,2 424

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How *Leishmania* (*Leishmania*) *amazonensis* Reaches Central Nervous System? **ABREU-SILVA, AL**^{1/2} AND CALABRESE, KS² Universidade Estadual do Maranhão, São Luís – Maranhão Brazil

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Biomolecular Structure Center, Department of Biochemistry, University of Washington, Seattle, WA, USA.

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Effect of Antimicrobial Agents on the Expression of E. coli 0157:H7 Genes Encoding the Shiga-like Toxins. 320

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369 The Application of Raman Spectroscopy for the Investigation of the Impact of Antiinfective Agents.

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380 p38 MAPK Associates Stereoselective Priming by Grepafloxacin on Superoxide Production in Human Neutrophils. NIWA M^{1,2}, HIROTA M⁴, KOZAWA O², AND FUJIMOTO S³

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Antimalarial activities of Trioxaquines®, new modular molecules generation. **BENOIT-VICAL F**^{1, 2}, DECHY-CABARET O¹, ROBERT A¹, LOUP C¹, BERRY A², MAGNAVAL JF², SEGUELA JP²,

¹Laboratoire de Chimie de Coordination du CNRS, Toulouse, France ; ²Service de Parasitologie - Mycologie, Rangueil University Hospital, Toulouse, France.

Chloroquine Accumulation Properties of Plasma Membranes Vesicles Isolated from the Malarial Parasite, *Plasmodium* 136 falciparum.

ELANDALLOUSSI LM1, SMITH PJ2

¹CCMar, Universidade do Algarve, Portugal; ²Groote Schuur Hospital, University of Cape Town, South Africa.

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WEIMING XU & LIZHI LIU

Wolfson Institute for Biomedical Research, University College London.

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Potential for immunostimulaion of Cytokine Response in Hepatitis Chronic B.

SZKARADKIEWICZ A, JOPEK A, WYSOCKI J

Poznan University of Medical Sciences, Poznan, Poland.

165 The Effects of Genom Mutations in HCV-1b on IFN sensitivity in Hungarian Patients.

GERVAIN J¹, SIMON J², CZIBULA A³, KALMAR T³

¹Szent Gyorgy County Hospital, Szekesfehervar, Hungary

² University of Oxford, UK

³ Biological Research Centre, Szeged, Hungary.

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KLEIN CD1, HARTMANN RW1, HOLZER M1, KRONENBERGER B2, NEUGEBAUER A1, ZEUZEM S2

¹FR 8.2 Pharmaceutical and Medicinal Chemistry, Saarland University, Saarbrücken, Germany. ²Klinik für Innere Medizin II, Universitätsklinikum des Saarlandes, Homburg/Saar, Germany.

196 Impact of Erythrocyte Ribavirin Concentration in Hemoglobin Reduction induced by Interferon and Ribavirin Combination Therapy.

HOMMA M¹, INOUE Y², HOSONO H², MATSUZAKI Y¹, TANAKA N¹, SHIBATA M³, MITAMURA K³, HASEGAWA Y¹, NAGASAWA T1, KOHDA Y1

¹University of Tsukuba, Ibaraki, Japan; ²Tsukuba University Hospital, Ibaraki, Japan; ³Showa University, Tokyo, Japan.

Hepatitis C Virus (HCV) pseudoparticles as a powerful tool to develop new HCV entry inhibitors. 354

KIRCHHOFF F¹, STÄNDKER L², **MÜNCH J¹**¹Department of Virology, University of Ulm, Ulm; ²IPF Pharmaceuticals, Hannover.

Antiviral Potential of Soluble Form of Herpesvirus Entry Mediators to Alphaherpesvirus Infection. **ONO E**¹, AMAGAI K^{1,2}, TAHARAGUCHI S¹, TOMIOKA Y¹, WATANABE Y^{1,2}, YOSHINO S^{1,3}, CHEREL P⁴, UEDE T¹

¹Hokkaido University, Sapporo, Japan; ²Sankyo Labo Service Corporation, Tokyo, Japan; ³Gene Techno Science, 391 Sapporo, Japan; ⁴France Hybrids, St Jean De Braye, France.

Antipicornavirus Activity of Synthetic Flavanoids and Flavonoids.

DESIDERI N¹, QUAGLIA MG¹, CONTI C²

¹Dipartimento di Studi Farmaceutici, ²Dipartimento di Scienze di Sanità Pubblica, Università "La Sapienza", Roma, Italy.

MDR1 P-gp Activity In Intact Human Placental Tissue; Up- regulation by Retroviral Transduction. DIANE E. ATKINSON¹, COLIN P. SIBLEY¹, LESLIE J. FAIRBAIRN² AND SUSAN L. GREENWOOD

¹University of Manchester, Manchester England ²Paterson Institute of Cancer Research, Manchester England.

THEORETICAL INVESTIGATION OF THE TRIPHOSPHATE FORMS OF AZIDOTHYMIDINE AND THYMIDINE. 032 M. Arissawa^{1*}, J. Felcman¹ and J. O. Machucca Herrera²

Departamento de Química, Pontifícia Universidade Católica do Rio de Janeiro – Rua Marguês de São Vicente 225, Gávea, Rio de Janeiro, Brazil

Departamento de Química Inorgânica, Universidade Federal do Estado do Rio de Janeiro - Ilha do Fundão, Rio de Janeiro, Brazil.

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Dept. Of Pharmacokinetics and Drug Delivery, GUIDE, University of Groningen, Groningen, The Netherlands.

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 - KINMAN Ĺ, BRODIE SJ, TSAI CC, BUI T, LARSEN K, SCHMIDT A, ANDERSON D, MORTON WR, HU SL, HO RJY University of Washington, Seattle, WA, USA.
- A Rapid and Low-Cost Microfluidic Device for Monitoring Disease Progression in Response to Drug Therapy. 506 SIA SK, LINDER V, SIEGEL A, NAROVLYANSKY M, PARVIZ BA, WHITESIDES GM Department of Chemistry and Chemical Biology, Harvard University, Cambridge, MA (USA).
- 034 SARS Coronavirus E Protein Forms a Highly Unusual Palindromic Transmembrane Helical Hairpin that Explains its Role in Viral Budding.

- ARBELY E¹, KHATTARI Z², BROTONS G², SALDITT T², **ARKIN** IT¹

 Department of Biological Chemistry, Institute of Life Sciences, The Hebrew University of Jerusalem, Jerusalem, Israel; ²Institut für Röntgenphysik, Georg-August-Universität, Göttingen, Germany,
- Salvarsan then Sialidase Inhibitors now -both Chemotherapeutics. VOGEL GE, BLASINI R, HECKLER R, HOFSCHNEIDER P.H, KLENK H.D, KOMM CH, PRAGER J, SCHÄFER B, SCHAUER R, SCHÖTTLER M, SCHOTTDORF B, VASOLD M, WUTZLER P

Category: Resistance to antiinfectives

069 Monitoring of Antimicrobial Resistance among Bacteraemic Clinical Isolates in Slovakia.

BLAHOVA J., KRALIKOVA K., KRCMERY V. SR., BABALOVA M.

Slovak Medical University, Bratislava, Slovakia

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Section of Infectious Diseases, University of Pisa.

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Chitnis S, Chitnis V, Hemwani N and Chitnis DS.

Medical University of Bialystok, Poland.

145 Standard Treatment Guidelines and Antibiotic Resistance in South Africa.

ESSACK, **SY**¹, CONNOLLY C, ² STURM, A.W.¹
University of KwaZulu-Natal, ²Medical Research Council, Durban, South Africa.

150 Molecular Mechanism of Resistance to Ampicillin among Isolates of Enterococcus faecium Recovered from Patients in Tehran, Iran.

FEIZABADI MM¹, SHAYEGH MM ¹, ASADI S², GHARAVI S¹ and ALIABADI K³
¹Alzahra University¹, Tehran, Iran; ²Labbafinejad Hospital² Tehran, Iran; ³National Research Center for Genetic Enginerring and Biotechnology, Tehran, Iran.

- The Spread of Metallo- β -Lactamase producing *Pseudomonas aeruginosa* in Japanese Small Hospitals. **SHIGERU FUJIMURA**¹, TOSHIO SATO², KEIKO SHIRAHATA², YOSHIHISA NAKANO¹, YUTAKA TOKUE³, AKIRA 158 WATANABE³
 - ¹ Department of Microbiology, Miyagi University, Miyagi pref., Japan;

² Japan Microbiology Laboratories, Sendai, Japan;

- ³ Institute Development Aging and Cancer, Tohoku University, Sendai, Japan.
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Typhoid Fever in Africa: Emerging Flouroquinolone Resistance.

S KARIUKI^{1,3}, G REVATHI², J MUYODI¹, J MWITURIA¹, A MUNYALO¹, S MIRZA³, CA HART³

Centre for Microbiology Research, KEMRI, Kenya, Department of Medical Microbiology, Kenyatta National Hospital, Kenya, ³Department of Medical Microbiology and Genito-Urinary Medicine, Liverpool, UK.

- Cellular Pharmacokinetics of Quinolones Revisited: Role of the MDR Efflux Pumps Expressed in Macrophages. 651 J.M. MICHOT, M. HEREMANS, F. VAN BAMBEKE, M.P. MINGEOT-LECLERCQ and P.M. TULKENS. Unité de Pharmacologie cellulaire et moléculaire, Université catholique de Louvain, Brussels - Belgium.
- Distribution of Aminoglycoside Resistance Genes in Recent Clinical Isolates of Enterococci in Japan. **KOBAYASHI N** 1 , ALAM M 1 , ISHINO M 1 , MISE K 1 , SUMI A 1 , UEHARA N 2 , WATANABE N 2 1 Sapporo Medical University School of Medicine, Sapporo, Japan; 2 Sapporo Medical University Hospital, Sapporo, 263 Japan.
- 496 Study of multi drug resistance in Serrstia marcescene and cloning of responsible genes.

SHAHCHERAGHI FRESHTEH (PhD)1, TSUCHIYA TOMFUSA(PhD)2

- 1-Department of Bacteriology, Pasteur Institute of Iran, IR, Iran
- 2- Faculty of pharmaceutical science- Okayama University Japan
- Antibiotic and Antimicrobial Resistance, and Efficiency Disruption by Teas and Nutraceuticals. 585

PL WARD, M DONNELLY, A FRANKLIN, J HONG SE KATZ

Cook College, NJAES, Rutgers, the State University of New Jersey, New Brunswick, NJ, USA.

Analysis of the Plasmid that Can Transfer Antibiotic Resistance Genes from Fish Farm Bacteria to Clinical Bacteria. FURUSHITA M^{1, 2}, MAEDA T¹, AKAGI H¹, OHTA M², SHIBA T ¹Department of Food Science and Technology, National Fisheries University, Shimonoseki, Japan; ²Graduate School of Medicine, Nagoya University, Nagoya, Japan.

036 Presence of Virulence genes and Antimicrobial resistance in Shiga toxin producing E.coli(STEC) and Enteropathogenic E.coli (EPEC).

Mohammad Mehdi Aslani , F .Shoraj, J . Rehisi Microbiology Dept., Institute Pasteur of Iran

501 ANTIMICROBIAL RESISTANCE AND CLASS 1 INTEGRONS in Escherichia coli ISOLATED from Human and WATER SOURCES.

SHEHABI AA1, ODEH FJ1, FAYYAD M2

¹Department of Pathology-Microbiology, Faculty of Medicine, ²Water Research Center2, University of Jordan, Amman and Jordan

Loss of fitness in vitro and in vivo associated with multiple mutations to fluoroquinolone resistance in Escherichia coli. MARCUSSON LL¹, KOMP LINDGREN P¹, SANDVANG D², FRIMODT-MØLLER N², HUGHES D¹

Department of Cell and Molecular Biology, Microbiology Programme, Uppsala University, Uppsala, Sweden. ²⁾Statens Serum Institute. Copenhagen. Denmark.

Susceptible *Escherichia coli* Isolates Are More Virulent Than Multidrug-Resistant Isolates: An Experimental Study. A. ANTONOPOULOU, C. PANAGOU, D. PLACHOURAS, F. BAZIAKA, T. TSAGANOS, **E. J. GIAMARELLOS-**BOURBOULIS.

4th Department of Internal Medicine, Athens Medical School, Greece.

077 Rational Approaches to Overcome Selectivity and Multidrug Resistance Problems in the Design of Antifungal Agents. **BOROWSKI E**¹, CYBULSKA B¹, MAZERSKI J¹, BAGIŃSKI M¹, GRZYBOWSKA J¹, MILEWSKI S¹, ANDRUSZKIEWICZ R¹, BOLARD J²

¹Gdańsk University of Technology, Gdańsk, Poland; ²CNRS ESA 7033 Pierre and Marie Curie University, Paris, France.

Evolution of resistance to expanded-spectrum cephalosporins due to extended-spectrum β-lactamases in Dubrava Hospital, Zagreb.

BEDENIC B¹, SCHMIDT H², HEROLD S², MONACO M³, PLECKO V⁴, KALENIC S⁴

1"A. Stampar" School of Public Health, Medical School, University of Zagreb, Croatia, ²Institute of Microbiology and Hygiene, Technical University Dresden, Germany, ³Instituto Superiore di Sanita, Rome, Italy, ⁴Clinical Hospital Center, Zagreb, Croatia.

Conjugative Transfer of Plasmid Encoding Extended-Spectrum _β-Lactamase (ESBL) between Clinical Salmonella 131 Isolates.

SAROWSKA J¹, **DRULIS-KAWA Z²**, JANKOWSKI S¹, DOROSZKIEWICZ W²

Departament Biology and Medical Parasitology, Medical University, Wrocław, Poland;

² Institute of Genetic and Microbiology, University of Wroclaw, Poland.

495 Drug resistance patterns of bacterial pathogens causing urinary tract infection at Tehran Torfeh Hospital during 2002-2003.

SHAHCHERAGHI FRESHTEH¹, FEIZABADI MOHAMAD MEHDI²

1-Department of Bacteriology, Pasteur Institute of Iran, IR, Iran

2-Department of Biological science, Alzahra University, Vanak, Tehran, Iran.

Category: Analytical techniques

287 Low Level Quantitative Analysis of Amoxicillin (AMO) in Plasma.

LANDERSDORFER C¹, KINZIG-SCHIPPERS M¹, HOLZGRABE U², SKOTT A¹, SÖRGEL F¹

¹Institute for Biomedical and Pharmaceutical Research, Nürnberg; ²Institut für Pharmazie und Lebensmittelchemie, University of Würzburg, Würzburg, Germany.

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Sensitive Analysis of Roxithromycin in Human Plasma by LC-MS/MS.
KINZIG-SCHIPPERS M¹, LANDERSDORFER C¹, JAKOB V¹, RODAMER M¹, SKOTT A¹, HOLZGRABE U², **SÖRGEL F¹**¹Institute for Biomedical and Pharmaceutical Research, Nürnberg; ²Institut für Pharmazie und Lebensmittelchemie, University of Würzburg, Würzburg, Germany.

METHODS OF RAPID DETECTION OF URINARY TRACT INFECTIONS, THE CAPILLARY ISOELECTRIC FOCUSING 194 AND DIRECT MICROPY.

V. Holá¹, F. Růžička¹, M. Horká², K. Šlais²

¹Institute for Microbiology, Faculty of Medicine, Masaryk University, Brno, Czech Republic

²Institute of Analytical Chemistry, Academy of Sciences of the Czech Republic, Brno, Czech Republic.

Determination of Tolbutamide and its Two Metabolites in Human Urine by LC-MS/MS. 254

KINZIG-SCHIPPERS M¹, FAST D², BREAU A², HOLZGRABE U³, SÖRĞEL F

¹Institute for Biomedical and Pharmaceutical Research, Nürnberg, Germany;

²G. D. Searle & Co., Skokie, IL, USA;

³Institut für Pharmazie und Lebensmittelchemie, University of Würzburg, Würzburg, Germany.

Rapid and Sensitive Determination of an Anti-infective AgNO₃ in Biological Samples using Electrospray Mass 335 Spectrometry.

MINAKATA K, SUZUKI O

Hamamatsu University School of Medicine, Hamamatsu, Japan.

CHEMICAL STABILITY OF CASPOFUNGIN IN CONCENTRATES AND INFUSION BAGS DETERMINED BY HIGH-PRESSURE LIQUID CHROMATOGRAPHY.

Nguyen TH, Rosenhagen M, Hoppe-Tichy T

Pharmacy of the University Hospital Heidelberg, Heidelberg, Germany.

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376 HPLC Determination of Tigecycline in Human Samples. C. LI, C. SUTHERLAND, Č.H. NIGHTINGALE, D.P. NICOLAU Ctr. for Anti-Infective Res. and Dev., Hartford Hosp., Hartford, CT.

IDENTIFICATION OF THE YEASTS BY CAPILLARY ELECTROPHORETIC TECHNIQUES WITH USE OF DYNAMIC MODIFICATION OF THE CELLS BY FLUORESCENT STAIN.

F. Růžička¹, V. Holá¹, M. Horká², K. Šlais²

¹Institute for Microbiology, Faculty of Medicine, Masaryk University, Brno, Czech Republic

²Institute of Analytical Chemistry, Academy of Sciences of the Czech Republic, Brno, Czech Republic.

464 Staining Plasmodium falciparum Histidine Rich Protein II (Pf HRPII) for High Through Put (HTP) Discovery of Blood Stage Antimalarials

SAHAL D, KANNAN R, KUMAR K, CHAUHAN V S

Malaria Research Laboratory, International Center for Genetic Engineering & Biotechnology, New Delhi, India.

Real Time RT-PCR: A method for the assessment of immun-response on mRNA level. A case study on fosfomycin. **JOKHADAR C**^{1,2}, JILMA B¹, STEINER I¹, MÜLLER M¹, WAGNER O³, MARSIK C^{1,3}

¹Department of Clinical Pharmacology, Division of Clinical Pharmacokinetics, ²Institute of Pharmacology, ³Institute of Medical and Chemical Laboratory Diagnostics; all Medical University of Vienna, Vienna, Austria. 654

661 Determination of the Extent of the Protein Binding of Antibiotics by Means of Automated Continuous Ultrafiltration.

HEINZE A, HOLZGRABE U

Institute of Pharmacy and Food Chemistry, University of Wuerzburg, Germany.

Antineoplastic agents - new and known synthetic Category: compounds

208 Studies on New Tumour Active Compounds with Three Metal Centres.

HUQ F¹, DAGHRIRI H², BEALE P³, YU JQ¹

¹School of Biomedical Sciences, University of Sydney, Sydney, Australia; ²RPAH, Camperdown Sydney Australia.

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Metal-Complexes as Chemotherapeutic Agents. $\textbf{THEOPHANIDES T}^{1,2} \text{ ANASTASSOPOULOU J}^1 \text{ THEODORACOPOULOU O}^1$

¹National Technical University of Athens, Chemical Engineering School, Radiation Chemistry and Biospectroscopy, Zografou Campus, Zografou Athens.

²International Institute of Anticancer Research, Kapandriti-Kalamou, Greece.

The Influence of Ring-Closing Processes on the Activity of New pH-Sensitive Platinum Anti-Tumour Agents.

HARTINGER CG¹, SCHLUGA P¹, GALANSKI M¹, JAKUPEC MA¹, KEYSERLINGK N GRAF VON², KEPPLER BK¹ ¹Institute of Inorganic Chemistry, University of Vienna, Vienna, Austria

²Faustus Forschung Austria Translational Drug Development AG, Vienna, Austria.

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Correlation of *In Vitro* Potency and Reduction Potential of Tumour-Inhibiting Ruthenium Complexes. **ARION VB**, JAKUPEC MA, REISNER E, EICHINGER A, PONGRATZ M, GALANSKI M, HARTINGER CG, KEPPLER

Institute of Inorganic Chemistry, University of Vienna, Vienna, Austria.

Interaction of Radiation and Anticancer Drug (Cisplatin, Etoposide) on Two Cell Lines with Different Radiosenseitivities In Vitro (especially Apoptosis.

Takahashi T1, Mitsuhashi N2, Akimoto T3, Matsumoto H3, Ishikawa H3, Nakano T3

¹Dept. of Radiol., Saitama Med. Center, Saitama Med. Sch., Kawagoe, Japan; ²Dept. of Radiol., Tokyo Women,s Medical Univ., Tokyo, Japan; ³Dept. of Radiol. & Radiat. Oncol., Gunma Univ. Sch. of Med., Maebashi, Japan.

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Andoh T¹, Yamamoto M¹, Kato T², Yamori T³

¹Soka University, Tokyo, ²Tohoku Pharmaceutical University, Sendai, ³Foundation for Cancer Research, Tokyo, Japan.

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KOSTENKO A, YAKOVENKO O, GOLUB A, BDZHOLA V, SAPELKIN V, and YARMOLUK S

Institute of Molecular Biology and Genetics of NAS of Ukraine, Ukraine, Kyiv.

Sulfonamides as anti-tumor agents: novel mechanisms of action and new pharmacological agents in development. 527 Claudiu T. Supuran

Università degli Studi di Firenze, Polo Scientifico, Laboratorio di Chimica Bioinorganica, Sesto Fiorentino (Florence).

553 Antitumor effects of water soluble phenoxazine on various carcinoma cells in vitro and in vivo.

Department of Biochemistry, Tokyo Medical University, Tokyo, Japan.

Invention of a novel oral antimetabolite named TAS-102 by biochemical modulation of trifluorothymidine (FTD) with 140 newly synthesized thymidine phosphorylase inhibitor (TPI).

EMURA T, YOKOGAWA T, KITAZATO K, FUKUSHIMA M, TERADA T

Hanno Research Center, Taiho Pharmaceutical Co., Ltd., Saitama, Japan.

Category: Antineoplastic agents - new and known nonsynthetic compounds

321 Anti-angiogenic activity of vitamin B₆.

KIMINORI MATSUBARA¹, REIKO AKAGI¹, MASAHARU MORI¹, NORIHISA KATO² ¹Okayama Prefectural University, Okayama, Japan; ²Hiroshima University, Hiroshima, Japan.

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Anti-metastatic effects of polysaccharide-K (PSK) in colorectal carcinoma cells by protein microarray analysis. **Yoshikawa R**^{1,2}, Yanagi H¹, Noda M¹, Yamamura T^{1,2}, Okamura H², Hashimoto-Tamaoki T^{2,3}.

¹Second Department of Surgery; ²Institute for Advanced Medical Sciences; ³Department of Genetics, Hyogo College of

Medicine, Nishinomiya, Hyogo, JAPAN.

Could FGF-1 be a "magic bullet"? A very preliminary studies in vitro. 313

MARCINKOWSKA E, SUPERAT K.

Institute of Biochemistry and Molecular Biology, University of Wroclaw, Poland.

156 Antitumour Activity of Cyanidin-3-O-β-Glucopyranoside: Effects on Human Transformed and Non-Transformed Cell

FIMOGNARI C¹, BERTI F¹, NÜSSE M², CANTELLI-FORTI G¹, HRELIA P¹

¹University of Bologna, Bologna, Italy; ²GSF-National Research Center for Environment and Health, Neuherberg, Germany.

154 Plant Jasmonates - A Novel Class of Anti-Cancer Molecules.

FLESCHER E

Tel Aviv University, Tel Aviv, Israel.

The Effect of Phorbol Ester in a Wide Range of Concentration on the Membranes of Ehrlich Ascite Carcinoma Cells in 307

MAL'TSEVA EL, Pynzar El, Pal'mina NP

Institute of Biochemical Physics, Russian Academy of Sciences, Moscow, Russia.

613 An overview of anticancer phytotherapy using Viscum album extract Isorel: Novel findings of simultaneous anticancer and anti-diabetic effects in mice bearing solid form of Ehrlich Ascytic Tumor.

Rudjer Boskovic Institute, Div. of Molecular Medicine, Zagreb, Croatia:

075 Effect of recombinant human interleukin 2 (rIL2) pretreatment on oral paclitaxel toxicity and activity on murine Lewis Lung Carcinoma.

BONHOMME-FAIVRE L^{1,2}, HOSTEN B², ABBARA C¹, GIL S², MARION S¹ CHALLUAU D³, ARDOUIN P³, FARINOTTI

¹ Paul Brousse Hospital, Department of Pharmacy, Villejuif, France AP-HP; ²Laboratory UPRES EA 2706, Chatenay Malabry, France; ³ Institut Gustave Roussy, Villejuif, France.

Combined Antitumor Activity of Extracts from Cyanobacterium Anabaena cylindrica with Some Anticancer Agents. 528 **SUZUKI T**¹, EZURE T², NAKAMURA Y², POMÁTI F³, MANAROLLA G³, RÓSSETTI C³, FABIAN WMF⁴

¹Toyo University, Asaka, Japan; ²Tokyo Institute of Technology, Yokohama, Japan; ³University of Insubria, Varese, Italy; ⁴Karl-Franzens Universität Graz, Graz, Austria.

Granulocyte Colony-Stimulating Factor (G-CSF) Mobilizes Bone Marrow (BM)-Derived Endothelial Progenitor Cells (EPCs) for Ischemic Neovascularization.

OHSAKA A1, OHKI Y1, HEISSIG B2, HATTORI K2, DAIDA H1

¹Juntendo University School of Medicine, Tokyo, Japan; ²Institute of Medical Science, University of Tokyo, Tokyo,

197 Antineoplastic Strategy: Irreversible Tumor Blood Flow Stasis Induced by the Combretastatin A-4 Derivative AVE8062 (AC7700).

HORI K1

¹Institute of Development, Aging and Cancer, Tohoku University, Sendai, Japan.

Antineoplastic agents - clinical studies Category:

Thermochemotherapy: combining hyperthermia with cytotoxic chemotherapy.

DVORAK J, ZOUL Z, MELICHAR B, VESELY P

Charles University Medical School & Teaching Hospital, Hradec Kralove, Czech Republic.

611 Non-organ Specific Cancer Preventive Effects of Panax ginseng C.A. Meyer: A Prospective Study for 10 Years. YUN T-K

Korea Institute for Cancer Chemoprevention, Seoul, Korea.

Clinical Application of Body Epigenetic System. Multi-Targeted Therapy for Primary Brain Tumors. 083 BURZYNSKI SR, JANICKÍ T, WEAVER R, JURIDA G, SŽYMKOWSKÍ B, KHAN M, DOLGOPOLOV V. Burzynski Clinic, Houston, USA.

402 Trifolium Pratense for breast diseases – clinical studies (a case series).

PÂRVU E.

The Acupuncture and Homeopathic Centre ,Bucharest, Romania.

Identification and Validation of Biomarkers of Phyto-oestrogen Exposure and their Application in Breast Cancer 444

RITCHIE MR1, MORTON MS2, DEIGHTON N3, BLAKE A3, STEWART D3, CUMMINGS JH4, STEEL, CM1, RICHES A1 ¹Bute Medical School, University of St. Andrews, Scotland; ²Department of Clinical Biochemistry, University of Wales, Cardiff; ³Scottish Crop Research Institute, Invergowrie, Scotland; ⁴ Division of Pharmacology and Neurosciences, University of Dundee, Scotland.

- 189 Water-in-Oil-in-Water Emulsion for Transcatheter Arterial Embolization Therapy for Hepatocellular Carcinoma. HINO T1, KAWASHIMA Y2, SHIMABAYASHI S1 ¹The University of Tokushima, Tokushima, Japan; ²Gifu Pharmaceutical University, Gifu, Japan.
- Molecular Markers Identify High Grade Prostatic Intraepithelia Neoplasia (HGPIN) Precursor to Prostate Cancer (PC): 509 Selection of Patients for Repeat Biopsy.

 SINHA AA^{1, 2}, Betre, K¹, Lall V¹, Ewing SL^{2, 3}, Wilson MJ³, Qian J⁴, Bostwick DG^{4, 5} ¹Depts. of Genetics, Cell Biol. & Develop., ²VA Research Service, ³Lab. Med. & Pathol., Univ. of Minnesota,
- Activity of cladribine combined with etoposide in heavily pretreated patients with indolent lymphoid malignancies. **ROBAK T**, SZMIGIELSKA-KAPLON A, BLONSKI JZ, KASZNICKI M, CHOJNOWSKI K. Medical University of Lodz and Copernicus Memorial Hospital, Lodz, Poland.

Minneapolis, MN and ⁴Bostwick Laboratories, Richmond VA and ⁵Univ. of Virginia, Charlottesville, VA, USA.

648 The Place of Cladribine in the Treatment of Chronic Lymphocytic Leukemia – Polish Experience. ROBAK T.

Medical University of Lodz and Copernicus Memorial Hospital, Lodz, Poland.

Pharmacokinetics and tissue penetration of Category: antineoplastic agents

- DOXO-EMCH, the First Albumin-binding Doxorubicin Prodrug to Enter Phase I Clinical Trials. MEDINGER M, MROSS K, KRATZ F, HÄRING B, UNGER C, DREVS J Tumor Biology Center, Freiburg, Germany.
- The Blood-Testis Barrier as a Target of some Chemotherapeutic Agents. Pereira ${\bf ML}^1$ and Garcia e Costa ${\bf F}^2$ 407

¹University of Aveiro, Aveiro, Portugal; ² Faculty of Veterinary Medicine, Technical University of Lisbon, Portugal.

Population Pharmacokinetic (PK) Modeling and Therapeutic Drug Monitoring (TDM) of High-dose (HD) Methotrexate (MTX) for Osteosarcoma.

BONDAREVA I1, SINGIN A2

¹The Research Institute of Physical-Chemical Medicine, Moscow, Russia; ²Russian Research Cancer Center, Moscow,

- 291 Population Pharmacokinetics of Intravenous Etoposide: Is there an Influence of Dose? CHARANEK W¹, LENTZ F¹, GRASMAEDER K¹, REIF S², JAEHDE U¹ ¹Inst. of Pharmacy, Dept. Clinical Pharmacy, University of Bonn, Germany; ²Inst. of Pharmacy, Dept. Clinical Pharmacy, Free University of Berlin, Germany.
- Dose Individualization Can Minimize Nephrotoxicity Due to Carboplatin Therapy in Ovarian Cancer Patients. DONADIO C1, LUCCHESI A1, ARDINI M1, COSIO S2, FANUCCHI A2, GADDUCCI A2 ¹Department of Internal Medicine – Nephrology; ²Department of Gynecology, University of Pisa, Pisa, Italy.

Mechanism of tumor development and growth Category:

Therapeutic Effects of Local Administration of Caroverine on Noise-induced Hearing Loss in Guinea Pig. CHEN Zhiqiang ^{a, b}, DUAN Maoli ^b, **RUAN Runsheng** ^a, ULFENDAHL Mats ^b, TAN Luke ^a Department of Otolaryngology, National University of Singapore, Lower Kent Ridge Road, Singapore

- ^b Department of Clinical Neuroscience and Center for Hearing and Communication Research, Karolinska Institutet,
- 638 Specific DNA Labelling Based on Cooperative Hybridization of the Functional DNA Conjugates. IHARA T¹, FUJII T¹, MUKAE M¹, KITAMURA Y¹, OKADA K¹, TAZAKI M², JYO A¹ Kumamoto University, Kumamoto, Japan; ²Sojo University, Kumamoto, Japan.
- 295 Hypermethylation of hMLH1 Promoter Represents a Major Mechanism for the Presentation of High-Frequency Microsatelite Instability

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 in the Early-Onset Colorectal Cancer of Taiwan.

Division of Colorectal Surgery, Department of Surgery, National Taiwan University Hospital and College of Medicine, Taipei, Taiwan.

572 The Significance of Serum Copper Levels in the Myelodysplastic Syndromes.

JUDIT VÁRKONYI ¹, TERÉZIA SZABÓ ², PIROSKA SEBESTYÉN ², ATTILA TORDAI³, HAJNALKA ANDRIKOVICS³, PÉTER FARKAS ¹, SZABOLCS BENEDEK ¹, GÁBOR TARKOVÁCS ¹, ISTVÁN KARÁDI ¹.

- 1. Semmelweis University, Budapest, Hungary
- 2. Heim Pál Hospital, Budapest, Hungary
- 3. National Institute of Hematology and Immunology, Budapest, Hungary.
- 163 Reactivity of Novel Albumin-Binding Platinum Complexes.

GARMANN D1, WARNECKE A2, KRATZ F2, JAEHDE U1

¹Inst. of Pharmacy, Dept. Clinical Pharmacy, University of Bonn, Germany; ²Tumor Biology Center, Freiburg.

534 Circumvention of Antifolate-Resistance by Rationally Designed New Analogues: the Relationship between Structural Modification and Pharmacological Property and Its Clinical Implications. **TAKEMURA Y**

National Defense Medical College, Tokorozawa, Japan.

520 Chemosensitivity changes at different ribosomal protein (S3a) mRNA levels and cell densities in various cell lines. SORIMACHI K, NEMOTO K, AKIMOTO K, SUNAGAWA M Dokkyo University School of Medicine, Mibu, Japan.

Choice of Bleomycin on the Basis of Polyamine Level in Various Regions of the brain in rats.

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1 Kawasaki College of Allied Health Professions, Okayama, Japan, 2 Kawasaki Medical School, Okayama, Japan.

Mechanisms of action of antineoplastic agents Category: including resistance

Cellular Factors of Multidrug Resistance (MDR) – New Strategies of Evaluation. **DIACONU C.C**¹, CHIVU M¹, BLEOTU C¹, ALEXIU A¹, ANTON G¹, PLESA A¹, BRASOVEANU L², AND CERNESCU C¹ 125 ^{1"}Stefan S. Nicolau" Institute of Virology, Bucharest, Romania, ²Center of Immunology, Bucharest, Romania.

460 The Cancer Cell's "Bullet Proof Vest": Inactivation of Ceramide Signaling Pathways Promotes Chemoresistance. Ruvolo, PP1

¹University of Texas Health Science Center, Institute of Molecular Medicine, Houston, USA.

507 High-level functional expression of human P-glycoprotein in yeast cells with high fluidity plasma membranes leads to resistance against Aureobasidin A. **SIEVERS JG**¹, AL-SHAWI MK², WIESE M¹

¹ University of Bonn, Germany, Medical Chemistry ² University of Virginia, Charlottesville, USA, Department of Molecular Physiology and Biological Physics.

Vaccination Category:

127 Delivery of DNA Vaccines by Attenuated Live Bacterial Vaccines. Dietrich G.

Berna Biotech Ltd, Berne, Switzerland.

476 Cytoskeletal Targets for the Development of Vaccines in Apicomplexan Parasites.

SCHATTEN H

¹Department of Veterinary Pathobiology, University of Missouri-Columbia, Columbia, MO, USA.

Category: Mechanisms of pharmacological importance

220 The Nociception/Antinociception of Sodium Channels Modulators Originating from Buthus martensi Karsch (BmK) Venom on the Inflammatory Pain.

Jin CHEN, Xu-Ying ZHANG, Zhan-Tao BAI, Zhi-Yong TAN, Yong-Hua JI

The Key Laboratory of Neurobiology, Institute of Physiology, Shanghai Institutes for Biological Sciences, Chinese Academy of Sciences, Shanghai, P.R. China.

AN APPROACH TO ASSESS HAZARD OF CHEMICAL MIXTURES IN A QUALITATIVE AND QUANTITATIVE 312 MANNER USING EXPERIMENTAL ANIMALS AND DEFINITE DOSES.

SAMEEH A. MANSOUR

Pesticide Chemistry Department, National Research Centre, Dokki, Cairo, Egypt.

Chemotherapy for Osteoarthritis? 454

ROZIN AP, MILITIANU D, EDOUTE Y

Rambam Medical center and B. Rappaport Faculty of Medicine, Technion-Israel Institute of Technology, Haifa, Israel.

533 A new polysaccharide lyase that acts on a basic polysaccharide, producing an oligosaccharide terminating in unsaturated amino sugar residue.

TAKEDA M, MAKITA H, NAKAHARA Y, NOGAMI T, KOIZUMI J

Division of Materials Science and Chemical Engineering, Faculty of Engineering, Yokohama National University, Yokohama, Japan.

110 Leukocytes as "Magic Bullets" Against Cancer Cells in Cancer-resistant SR/CR Mice.

Zheng Cui, Mark C Willingham and Amy M. Hicks

Department of Pathology, Wake Forest University School of Medicine Winston-Salem, North Carolina, USA.

462 Estimation of Chemotherapy Effectiveness Using Chromosome Aberration Analysis in the Peripheral Human Blood Lymphocytes.

DYOMINA EA, RYABCHENKO NM

Institute of Experimental Pathology, Oncology and Radiobiology of NAS of Ukraine, Kyiv.

Category: Diagnostic tests in cancer / adverse events of cancer treatment

Diagnostic Value of *Silver Nitrate Staining* for *Nucleolar Organizer Regions* (NORs) in Selected Head and Neck Tumors. **Eslami B**¹, Rahimi F¹, Rahimi H², Moradzadeh Khiavi M³, Tahernia R²

¹Shahid Behesti University of Medical Sciences, Tehran, Iran, ²Iran Center for Dental Research, Tehran, Iran, ³Tabriz University of Medical Sciences, Tabriz, Iran.

Category: Adverse events of antineoplastic compounds

- 258 Caffeic acid phenethyl ester ameliorated ototoxicity induced by cisplatin in rats. **Ahmet Kizilay¹**, M. Tayyar Kalcioglu², Elif Ozerol³, Mustafa Iraz⁴, Mukaddes Gulec³, Omer Akyol⁵, Orhan Ozturan⁶

 1.2.6 Departments of Otorhinolaryngology; 3.5 Department of Biochemistry; ⁴Department of Pharmacology; Inonu University School of Medicine, Malatya, TURKEY
- 602 Efficacy of Shakuyaku-kanzo-to in the Treatment of Paclitaxel-induced Muscle Pain —VAS Assessment. **YAMAMOTO K**¹, HIRANO F¹, IKOMA N¹, ABE K, HOSHIAI H, NODA K
 Sakai Hospital¹, Kinki University School of Medicine, Osaka, Japan.
- 599 Cancer Chemotherapy-Induced Intestinal Mucositis: Mechanisms of Mucosal Damage and Healing. XIAN CJ

Department of Orthopaedic Surgery, and University of Adelaide Department of Paediatrics, Women's and Children's Hospital, North Adelaide, Australia.

Category: Blood brain barrier

045 Cerebrospinal Fluid Dynamics an Relation with Blood Flow.

OLIVIER BALÉDENT

Department of Imaging and Biophysics, Teaching Hospitals, Jules Verne University of Picardie, Amiens, France.

609 Nanoparticles for Chemotherapy across the Blood Brain Barrier – Effects of Emulsifier and Particle Size. YU Q, CHEN L, FENG SS

Chemotherapeutic Laboratory, National University of Singapore, Singapore.

Distribution of the Aquaporin Water Channels AQP1, AQP3 and AQP4 in the Human Choroid Plexus; Implications for Water Transport in the Brain.

MOBASHERI A1, MARPLES D2

¹Molecular Pathogenesis and Connective Tissue Research Groups, Department of Veterinary Preclinical Sciences, University of Liverpool, Liverpool, United Kingdom. ²School of Biomedical Sciences, University of Leeds, Leeds, United Kingdom.

Insulin-like Growth Factor-1 (IGF-1) Delivery Across the Blood-Brain Barrier (BBB).

R S RIIKONEN

Children's Hospital, University of Kuopio, FINLAND.

Applications of a Blood-Brain Barrier Technology Platform to predict CNS penetration of drugs in various series of therapeutics families. II. *In vitro* model of rat blood-brain barrier.
PERRIERE N^{1,2}, ADENOT M¹, LAHANA R¹, SCHERMANN JM², ROUX F²

¹Synt:em, Nîmes, France; ² INSERM U26, Hôpital F.Widal, France.

Etoposide Pharmacokinetics in Cerebrospinal Fluid (CSF) After Different Intraventricular Dosage Regimens. **SIRISANGTRAGUL C**¹, HENKE G¹, FLEISCHHACK G², REIF S³, BODE U², JAEHDE U¹

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Category: Targeted delivery of antineoplastic agents

- Cryopreservation of Peripheral Blood Stem Cells (PBPC) Frozen with 5% instead of 10% DMSO Give Better or no Differences in Colony Formation and Less Apoptosis and Necrosis in CD34⁺ Cells. **BAKKEN AM¹**, Abrahamsen JF¹, Bruserud Ø²
 - ¹The Blood Bank and ²Division of Hematology, Haukeland University Hospital, Bergen, Norway.
- 274 Enhanced Cell-Surface Expression of MMPs and Their Inhibitors, and Tumor-Induced Host Response in Progression of Human Gastric Carcinoma.

KOYAMA S.

- Institute of Clinical Medicine, Graduate School of Comprehensive Human Sciences, University of Tsukuba, Japan.
- Gene Manipulation by Photo-Sensitive Chemical Agents

HIDEKI ANDO¹, TOŚHIAKI FURUTA², HITOSHI OKAMOTO¹

- ¹Lab. for Developmental Gene Regulation, Brain Science Institute, RIKEN (The Institute of Physical and Chemical Research), Japan. ²Dep. Biomolecular Science, Toho University, Japan.
- 392 Non-Transcriptional Functions of STATs in Tumor Cells – Possible Target for Antineoplastic Therapy? **ORZECHOWSKI A, PAJAK B**
 - Department of Physiological Sciences, Warsaw Agricultural University, Faculty of Veterinary Medicine, Warsaw, Poland.
- Novel Acoustic Liposomes for Drug Encapsulation. 546 TIUKINHOY SD, HUANG SL, KHAN AA, MACDONALD RC, MCPHERSON DD.
 - Northwestern University, Chicago/Evanston, Illinois, USA.
- Behind the Scenes of Cycloheximide-Mediated Sensitization of Colorectal Cancer Cells to $TNF\alpha$ -Induced Apoptosis. ¹PAJAK B, ²GAJKOWSKA B, ¹ORZECHOWSKI A ¹Department of Physiological Sciences, Warsaw Agricultural University, Faculty of Veterinary Medicine, Warsaw, Poland; ²Department of Cell Ultrastructure MRC, Polish Academy of Sciences, Warsaw, Poland.
- Alpha-fetoprotein-vehicled targeted delivery of doxorubicin and antisenses to tumor cells. 429 POSYPANOVA GA, 3NITSVETOV MB, 1MOSKALEVA EYU, 2KIREEVA NN, 1RODINA AV, 1POPOVA ON, 1SEVERIN SE. 2SEVERIN ES. ¹Moscow Research Institute of Medical Ecology, ²Russian Research Center for Molecular Diagnostics and Therapy, ³IM
- 587 Chemotherapeutic Targeting of Ranimustine (MCNU) or Nimustine (ACNU) to Various Tissues on the Basis of Polyamine Level.

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Category: Role of cells and their staining by dyes

New Antiulcer and Antiinflammatory Agents Inhibit Compound 48/80-Induced Mast Cell Degranulation. 405

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Mast cell (MC) as a significant contributor to the physiological response under different extreme exposures. 645

GRAEVSKAYA EE¹, ACHALAYA MY¹, YASUTAKÉ A.², ARAMAKI R.², RUBIN AB.¹

Dept. Biophysics, Biological Faculty, Moscow State University, Moscow, Russia, ²National Institute for Minamata Disease, Minamata, Kumamoto, Japan.

Agents involving the immune system Category:

GANGLIOSIDES-BASED CANCER VACCINES: TOXICOLOGICAL ASSAYS.
A Bada¹, A Casacó², A Mancebo¹, **B González¹**, D Fuentes¹, O Hernández¹, ME Arteaga¹, J Hernández¹, C González¹, N Subirós¹, Y González¹, C Mesa², LE Fernández²

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170 Perspectives of combined radioimmunotherapy and anti- EGFR antibody, h-R3, therapy for the treatment of solid tumors of neuroephitelial origen.

Barbara O. Gonzalez Navarro^{1*}, Angel Casaco Paradas², Nelvis Subiros Martinez¹, Rene Leyva Montana³, Mariela Leon Perez³, Osvaldo Hernandez Sosa¹, Juana Hernandez Estrada¹, Irene Bosulei², Alejandro Perera Pintado⁴, Magdalena Legro Soto¹

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523 Overview of Effectiveness of Rabies Antibodies in Rabies Postexposure Prophylaxis.

STANKOV S, VRANJES N, AND DESNICA J

Pasteur Institute, Novi Sad, Serbia and Montenegro.

Category: About mechanisms and Magic Bullets

- The Efficacy of Tacrolimus in the Management of Focal Segmental Glomerulosclerosis.
 R Bhimma, M Adhikari, K Asharam, CA Connolly.
 University of Kwazulu-Natal, Kwazulu-Natal, Durban, South Africa.
- Protective Effects of Local Administration of Caroverine on Noise-induced Hearing Loss in Guinea Pigs.

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 a Department of Otolaryngology, National University of Singapore, Lower Kent Ridge Road, Singapore

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- 658 Th1/Th2 cytokine balance: in what way pregnancy is similar to cancer?

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