



सत्यमेव जयते

IPC

# ARTICLE ALERT OF JOURNALS

*A Monthly Publication*



*Vol. 8, No. 3, March, 2018*

**Library & Information Centre**

**INDIAN PHARMACOPOEIA COMMISSION**  
Ministry of Health & Family Welfare, Govt. of India  
Ghaziabad (U.P.)

# INDEX

<i>Sr. No.</i>	<i>Content</i>	<i>Page No.</i>
1.	<b>Analyst</b> <i>Volume 143, Issue 05, 07 March, 2018</i>	1-3
2.	<b>Analyst</b> <i>Volume 143, Issue 06, 21 March 2018</i>	3-6
3.	<b>Analytical Methods</b> <i>Volume 10, Issue 09, 07 March 2018</i>	7-8
4.	<b>Analytical Methods</b> <i>Volume 10, Issue 10, 14 March 2018</i>	8-10
5.	<b>Analytical Methods</b> <i>Volume 10, Issue 11, 21 March 2018</i>	10-11
6.	<b>Analytical Methods</b> <i>Volume 10, Issue 12, 28February 2018</i>	11-12
7.	<b>British Medical Journal</b> <i>03 February 2018 (vol 360, issue 8139)</i>	13-15
8.	<b>British Medical Journal</b> <i>10February 2018 (vol 360, issue 8140)</i>	15-18
9.	<b>British Medical Journal</b> <i>17 February 2018 (vol 360, issue 8141)</i>	18-21
10.	<b>British Medical Journal</b> <i>27 February 2018 (vol 360, issue 8142)</i>	21-23
11.	<b>Current Science</b> <i>Vol. 114 - Issue 05, 10 March 2018</i>	24-26
12.	<b>Current Science</b> <i>Volume 114, Issue 06, 25 March 2018</i>	27-30
13.	<b>Drugs Safety</b> <i>Volume 41, Issue 3, March2018</i>	31
14.	<b>Drugs</b> <i>Volume 78, Issue 3, March 2018</i>	32
15.	<b>Drugs</b> <i>Volume 78, Issue 4, March 2018</i>	33

<b>16.</b>	<b>European Journal of Pharmaceutical Sciences</b> <i>Volume 114, March 2018</i>	34-38
<b>17.</b>	<b>Journal of Pharmaceutical &amp; Biomedical Sciences</b> <i>Volume 151, 20 March, 2018</i>	38-42
<b>18.</b>	<b>Pharmaceutical Research</b> <i>Volumes 35, Issue 3, March 2018</i>	43-44
<b>19.</b>	<b>Pharmacoepidemiology and Drug Safety</b> <i>Volume 27, Issue3, March2018</i>	45-46
<b>20.</b>	<b>Planta Medica</b> <i>Volume 85, Issue 05, March 2018</i>	47-48
<b>21.</b>	<b>Synthetic Communications</b> <i>Volume 48, Issue 10, March 2018</i>	49-50
<b>22.</b>	<b>Synthetic Communications</b> <i>Volume 48, Issue 11, March 2018</i>	50-51
<b>23.</b>	<b>Trends in Biotechnology</b> <i>Volume 36, Issue 03, March 2018</i>	52
<b>24.</b>	<b>Trends in Pharmacological Sciences</b> <i>Volume 39, Issue 03, March 2018</i>	53
<b>25.</b>	<b>Vaccine</b> <i>Volume 36, Issue 11, March 2018</i>	54-56
<b>26.</b>	<b>Vaccine</b> <i>Volume 36, Issue 12, March 2018</i>	57-59
<b>27.</b>	<b>Vaccine</b> <i>Volume 36, Issue 13, March 2018</i>	60-61
<b>28.</b>	<b>Vaccine</b> <i>Volume 36, Issue 14, March 2018</i>	61-63

\*\*\*\*\*

**Chem/bio sensing with non-classical light and integrated photonics**

*J. Haas, M. Schwartz, U. Rengstl, M. Jetter, P. Michler and B. Mizaikoff* 593-605

**Protein separation under a microfluidic regime**

*I. Rodríguez-Ruiz, V. Babenko, S. Martínez-Rodríguez and J. A. Gavira* 606-619

**In-cell NMR: from metabolites to macromolecules**

*G. Lippens, E. Cahoreau, P. Millard, C. Charlier, J. Lopez, X. Hanouille and J. CPortais*  
620-629

**Engineering highly sensitive whole-cell mercury biosensors based on positive feedback loops from quorum-sensing systems**

*Sheng Cai, Yifei Shen, Yan Zou, Peiqing Sun, Wei Wei, Jing Zhao and Chuan Zhang*  
630-634

**Direct detection of lysine side chain NH<sub>3</sub><sup>+</sup> in protein–heparin complexes using NMR spectroscopy**

*Krishna Mohan Sepuru, Junji Iwahara and Krishna Rajarathnam* 635-638  
*Article HTML*

**Competitive annealing mediated isothermal amplification of nucleic acids**

*Rui Mao, Lifei Qi, Jianjun Li, Ming Sun, Zhuo Wang and Yuguang Du* 639-642

**Quantitative evaluation of analyte transport on microfluidic paper-based analytical devices (μPADs)**

*Riki Ota, Kentaro Yamada, Koji Suzuki and Daniel Citterio* 643-653

**Quantitative mass spectrometry imaging of glutathione in healthy and cancerous hen ovarian tissue sections by infrared matrix-assisted laser desorption electrospray ionization (IR-MALDESI)**

*Milad Nazari, Mark T. Bokhart, Philip L. Loziuk and David C. Muddiman* 654-661

**An improved device with an affinity membrane to collect depth specific contamination free water for environmental assessment**

*Sweta Binod Kumar, Hardik Trivedi, Narshibhai Rameshbhai Baraiya and Soumya Haldar* 662-669

**Multi-step conformational transitions in heat-treated protein therapeutics can be monitored in real time with temperature-controlled electrospray ionization mass spectrometry**

*Guanbo Wang, Pavel V. Bondarenko and Igor A. Kaltashov* 670-677

**Implementation of a plasticized PVC-based cation-selective optode system into a paper-based analytical device for colorimetric sodium detection**

*Hiroyuki Shibata, Terence G. Henares, Kentaro Yamada, Koji Suzuki and Daniel Citterio* 678-686

**PNA versus DNA in electrochemical gene sensing based on conducting polymers: study of charge and surface blocking effects on the sensor signal**

*Bicheng Zhu and Jadranka Travas-Sejdic* 687-694

**Colorimetric molecular diagnosis of the HIV gag gene using DNAzyme and a complementary DNA-extended primer**

*Seong U. Kim, Bhagwan S. Batule, Hyoyoung Mun, Ju-Young Byun, Won-Bo Shim and Min-Gon Kim* 695-699

**Development of a fluorescent capillary biosensor based on self-assembled AuNP/LDH for micro-volume intracellular pyruvate**

*Ya-Xiong Luo, Qiao-Jing Li, Lang Zhou, Yong-Sheng Li and Xiu-Feng Gao* 700-708

**A label-free, versatile and low-background chemiluminescence aptasensing strategy based on gold nanocluster catalysis combined with the separation of magnetic beads**

*Yueyue Yao, Xiuzhong Wang, Wenna Duan and Feng Li* 709-714

**High temporal resolution delayed analysis of clinical microdialysate streams**

*S. A. N. Gowers, K. Hamaoui, P. Cunnea, S. Anastasova, V. F. Curto, P. Vadgama, G.-Z. Yang, V. Papalois, E. M. Drakakis, C. Fotopoulou, S. G. Weber and M. G. Boutelle* 715-724

**Label-free detection of fibrinogen based on the fibrinogen-enhanced peroxidase activity of a fibrinogen-hemin composite**

*Tingting Hou, Yuanfu Zhang, Tao Wu, Meifeng Wang, Yinghong Zhang, Rui Li, Lei Wang, Qingwang Xue and Shuhao Wang* 725-730

**Separation and characterization of cellulose nanocrystals by multi-detector asymmetrical-flow field-flow fractionation**

*Arnab Mukherjee and Vincent A. Hackley* 731-740

**A pH responsive AIE probe for enzyme assays**

*Leilei Shi, Yufeng Liu, Qian Wang, Tiankuo Wang, Yubin Ding, Yi Cao, Zhe Li and Hui Wei* 741-746

**Quantitative Raman microspectroscopy for water permeability parameters at a droplet interface bilayer**

*S. Braziel, K. Sullivan and S. Lee* 747-755

**Reaction-based fluorescent probe for the selective and sensitive detection of thiophenols with a large Stokes shift and its application in water samples**

*Mengzhao Zhang, Taohua Leng, Yongjia Shen and Chengyun Wang* 756-760

**An upconversion nanoparticle-based fluorescence resonance energy transfer system for effectively sensing caspase-3 activity**

*Lin Liu, Hua Zhang, Daqian Song and Zhenxin Wang* 761-767

**Spectrochemical analyses of growth phase-related bacterial responses to low (environmentally-relevant) concentrations of tetracycline and nanoparticulate silver**

*Naifu Jin, Kirk T. Semple, Longfei Jiang, Chunling Luo, Dayi Zhang and Francis L. Martin* 768-776

**Correction: Chemical analysis in saliva and the search for salivary biomarkers – a tutorial review**

*Kamonwad Ngamchuea, Korbua Chaisiwamongkhol, Christopher Batchelor-McAuley and Richard G. Compton* 777-783

**Correction: A pH responsive AIE probe for enzyme assays**

*Leilei Shi, Yufeng Liu, Qian Wang, Tiankuo Wang, Yubin Ding, Yi Cao, Zhe Li and Hui Wei* 784-784

Analyst

Volume 143, Issue 04, 21 February 2018

**Analyzing the structure of macromolecules in their native cellular environment using hydroxyl radical footprinting**

*Emily E. Chea and Lisa M. Jones* 798-807

**Nanoporous anodic aluminum oxide internalized with gold nanoparticles for on-chip PCR and direct detection by surface-enhanced Raman scattering**

*B. M. Tran, N. N. Nam, S. J. Son and N. Y. Lee* 808-812

**Enzyme-free quantification of exosomal microRNA by the target-triggered assembly of the polymer DNzyme nanostructure**

*Dinggeng He, Luo Hai, Huizhen Wang, Ri Wu and Hung-Wing Li* 813-816

**Deducing disulfide patterns of cysteine-rich proteins using signature fragments produced by top-down mass spectrometry**

*Xiuxiu Zhao, Yue Shen, Wenjun Tong, Guanbo Wang and David D. Y. Chen* 817-823

**Time-resolved visual detection of heparin by accelerated etching of gold nanorods**

*Jian Wang, Hong Zhi Zhang, Jia Jun Liu, Dan Yuan, Rong Sheng Li and Cheng Zhi Huang* 824-828

- A novel steric effect-regulated isothermal exponential amplification technology for the one-step homogeneous sensing of proteins**  
*Wanhua Wu, Wufan Pan, Dongdong Yu, Zhen Yuan, Yazhou Qin, Yuxiang Lu, Tao Zhang and Jianguang Zhou* 829-832
- Identification of isoforms of aspartic acid residues in peptides by 2D UV-MS fingerprinting of cold ions**  
*Vladimir Kopysov, Mikhail V. Gorshkov and Oleg V. Boyarkin* 833-836
- Neglected nano-effects of nanoparticles in the interpretation of their toxicity**  
*M. Mionić Ebersold, D. Bonvin and H. Hofmann* 837-842
- Fast selective trapping and release of picoliter droplets in a 3D microfluidic PDMS multi-trap system with bubbles**  
*Richard W. Rambach, Preetika Biswas, Ashutosh Yadav, Piotr Garstecki and Thomas Franke* 843-849
- Detection of A $\beta$  plaque-associated astrogliosis in Alzheimer's disease brain by spectroscopic imaging and immunohistochemistry**  
*Francesca Palombo, Francesco Tamagnini, J. Charles G. Jaynes, Sara Mattana, Imogen Swift, Jayakrupakar Nallala, Jane Hancock, Jonathan T. Brown, Andrew D. Randall and Nick Stone* 850-857
- Rapid and sensitive detection of neuron specific enolase with a polydopamine coated plasmonic chip utilizing a rear-side coupling method**  
*M. Toma, S. Izumi and K. Tawa* 858-864
- Fabrication and assessment of an electrospun polymeric microfiber-based platform under bulk flow conditions with rapid and efficient antigen capture**  
*Carlton F. O. Hoy, Keiichiro Kushiro and Madoka Takai* 865-873
- Affinity resins as new tools for identifying target proteins of ascorbic acid**  
*Yuji Iwaoka, Kohei Nishino, Takahiro Ishikawa, Hideyuki Ito, Yoshihiro Sawa and Akihiro Tai* 874-882
- Combination of a graphene SERS substrate and magnetic solid phase micro-extraction used for the rapid detection of trace illegal additives**  
*Shihua Yu, Zhigang Liu, Hongwei Li, Jianpo Zhang, Xin-xin Yuan, Xiangyu Jia and Yuqing Wu* 883-890
- A quantitative approach for pesticide analysis in grape juice by direct interfacing of a matrix compatible SPME phase to dielectric barrier discharge ionization-mass spectrometry**  
*Mario F. Mirabelli, Emanuela Gionfriddo, Janusz Pawliszyn and Renato Zenobi* 891-899
- Collection of amino acids and DNA from fingerprints using hydrogels**  
*Ward van Helmond, Vincent O'Brien, Robin de Jong, Jan van Esch, Sander Oldenhof and Marcel de Puit* 900-905

**Investigation of compacted DNA structures induced by Na<sup>+</sup> and K<sup>+</sup> monovalent cations using biological nanopores**

*Trang Vu, Shanna-Leigh Davidson and Jiwook Shim*

906-913

**DNA microarray-based resonance light scattering assay for multiplexed detection of DNA mutation in papillary thyroid cancer**

*Yaoqi Wang, Jiaxue Gao, Xianying Meng and Zhenxin Wang*

914-919

**Assay of serum cholinesterase activity by an amperometric biosensor based on a co-crosslinked choline oxidase/overoxidized polypyrrole bilayer**

*Rosanna Ciriello, Sonia Lo Magro and Antonio Guerrieri*

920-929

**Nonthermal optical emission spectrometry for simultaneous and direct determination of zinc, cadmium and mercury in spray**

*Yi Cai, Xin-Gang Gao, Zhi-Na Ji, Yong-Liang Yu and Jian-Hua Wang*

930-935

**Performance of point-of-care diagnosis of AIDS: label-free one-step-immunoassay vs. lateral flow assay**

*J.-H. Kwon, H.-T. Kim, S. J. Sim, Y. J. Cha and J. Lee*

936-942

**A single-molecule ELISA device utilizing nanofluidics**

*Kentaro Shirai, Kazuma Mawatari, Ryoichi Ohta, Hisashi Shimizu and Takehiko Kitamori*

943-948

**Rapid resolution of carbohydrate isomers via multi-site derivatization ion mobility-mass spectrometry**

*Li Li, Kristin R. McKenna, Zhao Li, Mahipal Yadav, Ramanarayanan Krishnamurthy, Charles L. Liotta and Facundo M. Fernández*

949-955

**Contactless, probeless and non-titrimetric determination of acid–base reactions using broadband acoustic resonance dissolution spectroscopy (BARDS)**

*M. Rizwan Ahmed, Sean McSweeney, Jacob Krüse, Bastiaan Vos and Dara Fitzpatrick*

956-962

**Direct thermal desorption gas chromatographic determination of toxicologically relevant concentrations of ethylene glycol in whole blood**

*James Robson, Stephen Townsend, Paul Bowdler and Kevin C. Honeychurch*

963-969

**Uptake of fatty acids by a single endothelial cell investigated by Raman spectroscopy supported by AFM**

*Katarzyna Majzner, Szymon Tott, Ludovic Roussille, Volker Deckert, Stefan Chlopicki and Malgorzata Baranska*

970-980

**A piezo-ring-on-chip microfluidic device for simple and low-cost mass spectrometry interfacing**

*Chia-Wen Tsao, I-Chao Lei, Pi-Yu Chen and Yu-Liang Yang*

981-988

**Microfluidic ELISA employing an enzyme substrate and product species with similar detection properties**

*Basant Giri, Yukari Liu, Fidelis N. Nchocho, Robert C. Corcoran and Debashis Dutta*

989-998

**Correction: Quantitative profiling of carbonyl metabolites directly in crude biological extracts using chemoselective tagging and nanoESI-FTMS**

*Pan Deng, Richard M. Higashi, Andrew N. Lane, Ronald C. Bruntz, Ramon C. Sun, Mandapati V. Ramakrishnam Raju, Michael H. Nantz, Zhen Qi and Teresa W.-M. Fan* 999-999

**Correction: Engineering highly sensitive whole-cell mercury biosensors based on positive feedback loops from quorum-sensing systems**

*Sheng Cai, Yifei Shen, Yan Zou, Peiqing Sun, Wei Wei, Jing Zhao and Chuan Zhang* 1000-1000

**Analytical Methods**  
**Volume 10, Issue09, 7 March 2018**

- Effect of mobile phase composition on the analysis of aggregates of antibody drug conjugates (ADCs) using size exclusion chromatography**  
*Rabin Neupane, Malin Källsten, Fredrik Lehmann and Jonas Bergquist* 938-941
- Detection of phytocannabinoids from buccal swabs by headspace solid phase microextraction – gas chromatography/mass spectrometry**  
*Tiffany Franklin, Lauren Perry, Wei-Chuan Shih and Jorn Yu* 942-946
- Development of an immunoblot assay for carcinoembryonic antigen (CEA) in human serum using a portable UV illuminator**  
*Raghuraj S. Chouhan, Javed H. Niazi and Anjum Qureshi* 947-949
- Direct analysis of alkaloids in natural Cinchonabark and commercial extracts using time-of-flight secondary ion mass spectrometry**  
*Derick N. Ateacha, Ulrike Koch and Carsten Engelhard* 950-958
- A novel non-targeted screening method for urinary exposure biomarker discovery of phthalates using liquid chromatography-mass spectrometry**  
*Chunhe Yao, Jianhua Wang, Peter Chan and Yong-Lai Feng* 959-967
- Rapid discrimination of natural polyphenols (vegetable tannins) from different plants by molecular spectroscopy and PLS-DA**  
*F. S. Grasel and M. F. Ferrão* 968-974
- Fast and sensitive low density solvent-based dispersive liquid–liquid microextraction method combined with high-performance liquid chromatography for determining cholecalciferol (vitamin D3) in milk and yogurt drink samples**  
*Marzieh Kamankesh, Mehrnoosh Shahdoostkhany, Abdorreza Mohammadi and Afsaneh Mollahosseini* 975-982
- A new ‘Turn-on’ PET-CHEF based fluorescent sensor for Al<sup>3+</sup> and CN<sup>-</sup> ions: applications in real samples**  
*Akul Sen Gupta, Kamaldeep Paul and Vijay Luxami* 983-990
- The doping level of boron-doped diamond electrodes affects the voltammetric sensing of uric acid**  
*K. Cinková, K. Kianičková, D. M. Stanković, M. Vojs, M. Marton and L. Švorc* 991-996
- Inhibitor-assisted synthesis of molecularly imprinted microbeads for protein recognition**  
*Hasan Basan, Mehmet Dinc and Boris Mizaikoff* 997-1005
- Chemometric assisted correlation optimized warping of chromatograms: optimizing the computational time for correcting the drifts in chromatographic peak positions**  
*Keshav Kumar* 1006-1014

**Detection of procalcitonin (PCT) using the double antibody sandwich method based on fluorescence resonance energy transfer between upconversion nanoparticles and quantum dots**

*Yang Zhou, Xiangming Shao, Yuwang Han and Hongman Zhang*

1015-1022

**A quantitative LC-MS/MS method for simultaneous determination of deuvortioxetine, vortioxetine and their carboxylic acid metabolite in rat plasma, and its application to a toxicokinetic study**

*Mei Qin, Hong-qun Qiao, Yan-juan Yuan and Qing Shao*

1023-1031

**Quantification of carbon nanotubes in polymer composites**

*T. Nosaka, R. S. Lankone, Y. Bi, D. H. Fairbrother, P. Westerhoff and P. Herckes*

1032-1037

**Direct analysis in real time mass spectrometry (DART-MS) of discrete sample areas without heat damage**

*G. Asher Newsome, Ikumi Kayama and Shannon A. Brogdon-Grantham*

1038-1045

**A liquid chromatographic method for separation of sacubitril–valsartan and their stereoisomeric impurities**

*Lu Zhou, Liang Zou, Lili Sun, Hui Zhang, Wenkai Hui and Qiaogen Zou*

1046-1053

**A simplified protocol for the usage of new immuno-SERS probes for the detection of casein, collagens and ovalbumin in the cross-sections of artworks**

*Stepanka Kuckova, Ezat Hamidi-Asl, Zdeněk Sofer, Petr Marvan, Karolien de Wael, Jana*

*Sanyova and Koen Janssens*

1054-1062

**A novel pyrene based highly selective reversible fluorescent-colorimetric sensor for the rapid detection of Cu<sup>2+</sup> ions: application in bio-imaging**

*Anupam Ghorai, Jahangir Mondal, Amit Kumar Manna, Shubhamoy Chowdhury and Goutam*

*K. Patra*

1063-1073

**Quantitative analysis of sinters using laser-induced breakdown spectroscopy (LIBS) coupled with kernel-based extreme learning machine (K-ELM)**

*Yu Ding, Fei Yan, Guang Yang, Haixiu Chen and Zhensheng Song*

1074-1079

## Analytical Methods

Volume 10, Issue 10, 14 March 2018

**Beam sampling: taking samples at the micro-scale**

*Analytical Methods Committee, AMCTB No. 84*

1100-1102

**Simultaneous determination of rifampicin, isoniazid, pyrazinamide and ethambutol in fixed-dose combination antituberculosis pharmaceutical formulations: a review**

*M. A. L. Oliveira, P. R. Chellini and T. L. Amorim*

1103-1116

**The design strategies and mechanisms of fluorogenic and chromogenic probes for the detection of hydrazine**

*Biswajit Roy and Subhajit Bandyopadhyay*

1117-1139

**Authenticity assessment of anabolic androgenic steroids in counterfeit drugs by <sup>1</sup>H NMR**

*Marcos Vinícius de M. Ribeiro, Nivaldo Boralle, Helena R. Pezza and Leonardo Pezza*

1140-1150

**Simultaneous determination of fifteen toxic alkaloids in meat dishes and vegetable dishes using double layer pipette tip magnetic dispersive solid phase extraction followed by UFLC-MS/MS**

*He-Li Cheng, Feng-Lian Wang, Yong-Gang Zhao, Yun Zhang, Mi-Cong Jin and Yan Zhu*

1151-1162

**Highly selective, rapid-functioning and sensitive fluorescent test paper based on graphene quantum dots for on-line detection of metal ions**

*Congxu Wang, Youyi Sun, Jianli Jin, Zhiyuan Xiong, Dan Li, Junru Yao and Yaqing Liu*

1163-1171

**Integrating network analysis with chromatography: introducing a novel chemometry-chromatography based analytical procedure to classify the bacterial cell wall collection**

*Keshav Kumar and Felipe Cava*

1172-1180

**Determination of hexabromocyclododecane in soil by supercritical fluid extraction and gas chromatography mass spectrometry**

*Xinlei Wang, Xu Zhang, Zhifeng Wang, Yuedong Chen, Xinxin Li and Zhaojie Cui*

1181-1189

**A novel IMAC platform – adenosine coupled functional magnetic microspheres for phosphoproteome research**

*Yinghua Yan, Yujie Lu, Mengying Chen and Hongze Liang*

1190-1195

**A new and simple electroanalytical method to detect thiomersal in vaccines on a screen-printed electrode modified with chitosan**

*Camila Gonzalez, Olimpo García-Beltrán and Edgar Nagles*

1196-1202

**Infrared and Raman spectroscopy of automotive paints for forensic identification of natural weathering**

*Andrey Giovanni Gomes de Oliveira, Ewelina Wiercigroch, Juliano de Andrade Gomes and Kamilla Malek*

1203-1212

**Paper based lateral flow immunoassay for the enumeration of Escherichia coli in urine**

*Aysen Gumustas, Mehmet Gokhan Caglayan, Merve Eryilmaz, Zekiye Suludere, Esra Acar Soykut, Bengi Uslu, Ismail Hakki Boyaci and Ugur Tamer*

1213-1218

**Raman spectroscopic library of medieval pigments collected with five different wavelengths for investigation of illuminated manuscripts**

*G. Marucci, A. Beeby, A. W. Parker and C. E. Nicholson*

1219-1236

**LC-MS/MS based quantitation of ciprofloxacin and its application to antimicrobial resistance study in Balb/c mouse plasma, urine, bladder and kidneys**

*Murali K. Matta, Ashok Chockalingam, Adarsh Gandhi, Sharron Stewart, Lin Xu, Katherine Shea, Vikram Patel and Rodney Rouse* 1237-1246

**Deep eutectic solvent-based extraction coupled with green two-dimensional HPLC-DAD-ESI-MS/MS for the determination of anthocyanins from *Lycium ruthenicum* Murr. fruit**

*Jun Sang, Bing Li, Ya-ya Huang, Qun Ma, Kang Liu and Cui-qin Li* 1247-1257

**A sulfonated chitoooligosaccharide modified silica material for hydrophilic interaction liquid chromatography and its chromatographic evaluation**

*Kui Yan, Haiyan Yang, Shaohua Huang and Zhengwu Bai* 1258-1265

**GC-MS profiling of leukemia cells: an optimized preparation protocol for the intracellular metabolome**

*Y. He, Z. M. Zhang, P. Ma, H. C. Ji and H. M. Lu* 1266-1274

**In situ methanation with flame ionization detection for the determination of carbon dioxide in various matrices**

*J. Luong, Y. Hua, R. Gras and M. Hawryluk* 1275-1279

**ATR-FTIR spectroscopy with chemometric algorithms of multivariate classification in the discrimination between healthy vs. dengue vs. chikungunya vs. zika clinical samples**

*Marfran C. D. Santos, Yasmin M. Nascimento, Joelma D. Monteiro, Brenda E. B. Alves, Marília F. Melo, Anne A. P. Paiva, Hannaly W. B. Pereira, Leandro G. Medeiros, Ingrid C. Morais, João Ciro Fagundes Neto, José V. Fernandes, Josélio M. G. Araújo and Kássio M. G. Lima* 1280-1285

**Analytical Methods**

**Volume 10, Issue 11, 21 March 2018**

**A universal method for the determination of polysorbate 80 in monoclonal antibodies and novel protein therapeutic formulations**

*Veerendra Koppolu, Bhargavi Vemulapalli, Jason Thomas, Sheau-Chiann Wang and Jon Borman* 1296-1304

**Application of syringe to syringe dispersive micro-solid phase extraction using a magnetic layered double hydroxide for the determination of cadmium(II) and lead(II) ions in food and water samples**

*Somayeh Arghavani-Beydokhti, Maryam Rajabi and Alireza Asghari* 1305-1314

**Development and clinical application of a LC-MS/MS method for simultaneous determination of one-carbon related amino acid metabolites in NTD tissues**

*Min Zhang, Lei Wang, Pei Pei, YiHua Bao, Jin Guo, Li Wang, ShaoYan Chang, XiaoLu Xie, HaiQin Cheng, Li Quan and Ting Zhang* 1315-1324

**Fast simultaneous detection of three diterpenoids in Herba Siegesbeckiae using solid phase extraction followed by HPLC-UV with a core-shell particle column**  
*Yong Zhang, Zhizhong Zou and Guixing Chou* 1325-1330

**Simultaneous determination of hydroquinone and catechol using a glassy carbon electrode modified with Au@Pd loaded on reduced graphene oxide**  
*Huijuan Wang, Siyu Zhang, Shufang Li and Jianying Qu* 1331-1338

**Endonuclease restriction-mediated real-time PCR for simultaneous detection of *Listeria monocytogenes* and *Listeria ivanovii***  
*Yan Wang, Yi Wang and Changyun Ye* 1339-1345

**The study of bismuth ions in drinking water at ultratrace levels by a microwave plasma torch coupled with linear ion trap mass spectrometry**  
*Xiaohong Xiong, Gangsheng Chen, Meiling Zhu, Yu Li, Chushan Yang, Kechao Xie and Zhiqiang Zhu* 1346-1352

**Recyclable silver nanoplate-decorated copper membranes for solid-phase extraction coupled with surface-enhanced Raman scattering detection**  
*Xiaofei Yu, Yuhong Chang, Vinothkumar Natarajan, Xiaoli Zhang and Jinhua Zha* 1353-1361

**Electrocatalytic performance of a zinc sulphide nanoparticles-modified carbon paste electrode for the simultaneous determination of acetaminophen, guanine and adenine**  
*Mallappa Mahanthappa, Nagaraju Kottam and Shivaraj Yellappa* 1362-1371

**Powder microelectrode embedded with carboxyl multi-walled carbon nanotubes for sensitive and quantitative detection of nitrofurantoin residues**  
*Bao-Shan He and Xiao-Ze Dong* 1372-1378

**Dendrimer grafted nanoporous silica fibers for headspace solid phase microextraction coupled to gas chromatography determination of solvent residues in edible oil**  
*Zahra Ramezani, Iman Saeedi and Payman Hashemi* 1379-1384

**Effects of the electrode insertion depth on the neural signal amplitude in the spinal cord**  
*Shijie Deng, Hai Hu and Peng Wang* 1385-1390

## Analytical Methods

### Volume 10, Issue 12, 28 March 2018

**Aqueous and non-aqueous electrophoresis and micellar electrokinetic capillary chromatography of a mixture of quinoline-2-thione and 8-mercaptoquinoline hydrochloride**  
*Anastasiya O. Zarubina and Margarita Sergeevna Chernov'yants* 1399-1404

**Engineering oligonucleotide-based peroxidase mimetics for the colorimetric assay of S1 nuclease**  
*Chuan He, Jinli Zhang, Wei Li and Yan Fu* 1405-1412

**Sex determination from fingermarks using fluorescent in situ hybridization**

**Annemieke van Dam, Angela van Weert, Kim Falkena, Chantal Weymans, Ate D.**

*Kloosterman, Saskia A. G. Lambrechts, Ton G. van Leeuwen and Maurice C. G. Aalders*

1413-1419

**Designed multifunctional ionic liquids–magnetic graphene nanocomposites as the adsorbent of MSPE for the determination of preservatives**

*Shurui Cao, Yaling Chen, Lei Zhang, Cunxian Xi, Xianliang Li, Bobin Tang, Guomin Wang*

*and Zhiqiong*

1420-1430

**Determination of amphetamine-type stimulants (ATSs) and synthetic cathinones in urine using solid phase micro-extraction fibre tips and gas chromatography-mass spectrometry**

*Khalid A. Alsenedi and Calum Morrison*

1431-1440

**Adsorptive stripping voltammetric determination of dicyclomine hydrochloride at a glassy carbon electrode modified with silver decorated Fe<sub>3</sub>O<sub>4</sub> nanocubes in pharmaceutical and biological samples**

*Chaitali R. Rawool, Anuja S. Rajpurohit, Ninad S. Punde and Ashwini K. Srivastava*

1441-1451

**Investigation of ethosuximide stability under certain ICH-recommended stress conditions using a validated stability-indicating HPLC method**

*Y. El-Shabrawy, M. Walash, N. El-Enany and R. El-Shaheny*

1452-1458

**Chemometrics-assisted liquid chromatography-full scan mass spectrometry for simultaneous determination of multi-class estrogens in infant milk powder**

*Xiao-Dong Sun, Hai-Long Wu, Zhi Liu, Li-Xia Xie, Yong Hu, Huan Fang, Tong Wang, Rong*

*Xiao, Yu-Jie Ding and Ru-Qin Yu*

1459-1471

**Development of a novel voltammetric sensor for the determination of quercetin on an electrochemically pretreated carbon-paste electrode**

*Konstantin Pliuta, Alexander Chebotarev, Anastasiya Koicheva, Kateryna Bevziuk and Denys*

*Snigur*

1472-1479

**Preparation of artificial antibodies and development of an antibody-based indirect ELISA for the detection of ancient wool**

*Bing Wang, Jincui Gu, Qiushi You, Boyi Chen, Hailing Zheng, Yang Zhou and Zhiwen Hu*

1480-1487

**There but for the grace of God . . .**

*BMJ 2018; 360 :k485*

**Expert urges doctors to report themselves to GMC**

*BMJ 2018; 360 :k481*

**Experts urge addition of folic acid to flour to halt “avoidable tragedy” of birth defects**

*BMJ 2018; 360 :k477*

**Seven days in medicine: 24 to 30 January 2018**

*BMJ 2018; 360 :k468*

**Sixty seconds on . . . the Presidents Club**

*BMJ 2018; 360 :k431*

**Bawa-Garba case has left profession shaken and stirred**

*BMJ 2018; 360 :k456*

**Paediatrician convicted of manslaughter must be erased from register, rules High Court**

*BMJ 2018; 360 :k417*

**Surgeon whose manslaughter conviction was quashed faces GMC hearing**

*BMJ 2018; 360 :k419*

**Doctor who failed to curb his abusive behaviour is struck off**

*BMJ 2018; 360 :k352*

**Government to investigate damage caused by mesh implants**

*BMJ 2018; 360 :k472*

**Alcohol labels should include information on calorie content, public health doctors say**

*BMJ 2018; 360 :k415*

**Bright side of life with Parkinson's**

*BMJ 2018; 360 :k464*

**Criminalising doctors**

*BMJ 2018; 360 :k479*

**Homelessness and public health**

*BMJ 2018; 360 :k214*

**Why we should be concerned about accountable care organisations in England's NHS**

*BMJ 2018; 360 :k343*

**Moving to accountable care in the NHS**

*BMJ 2018; 360 :k442*

**Fear and infertility research**

*BMJ 2018; 360 :k434*

**Migraine and risk of cardiovascular diseases: Danish population based matched cohort study**

*BMJ 2018; 360 :k96*

**Cancer risk associated with chronic diseases and disease markers: prospective cohort study**

*BMJ 2018; 360 :k134 (Published 31 January 2018)*

**Migraine and risk of cardiovascular disease**

*BMJ 2018; 360 :k275*

**How to estimate the effect of treatment duration on survival outcomes using observational data**

*BMJ 2018; 360 :k182*

Margaret McCartney: Doctors and families must be able to work together for safer care

*BMJ 2018; 360 :k443*

**Avoiding blame and liability is vital to learning from errors and engineering a safer NHS**

*BMJ 2018; 360 :k447*

**David Oliver: Should NHS doctors work in unsafe conditions?**

*BMJ 2018; 360 :k448*

**Should action take priority over further research on public health?**

*BMJ 2018; 360 :k292*

**Achyutananda Sinha**

*BMJ 2018; 360 :k109*

**Geoffrey Vivian Feldman**

*BMJ 2018; 360 :k228*

**Vincent John Kielty**

*BMJ 2018; 360 :k230*

**Moorthy Bagavatheswaran**

*BMJ 2018; 360 :k126*

**Peter Dennis Sprackling**

*BMJ 2018; 360 :k129*

**Sylvio Tamin**

*BMJ 2018; 360 :k106*

**Fernando “Ferdie” Pacheco: ringside physician for boxing legend Muhammad Ali**  
*BMJ 2018; 360 :k117*

**Improving access to eating disorder services**  
*BMJ 2018; 360 :k382*

**Hair loss is an important symptom of the menopause**  
*BMJ 2018; 360 :k245*

**Healthcare professionals must demand action on the social determinants of preventable low fetal growth and preterm birth**  
*BMJ 2018; 360 :k399*

**GPs to judge which patients deserve an NHS prescription**  
*BMJ 2018; 360 :k404*

**Peripheral artery disease**  
*BMJ 2018; 360 :j5842*

**Does ursodeoxycholic acid improve perinatal outcomes in women with intrahepatic cholestasis of pregnancy?**  
*BMJ 2018; 360 :k104*

**A keen eye for risk**  
*BMJ 2018; 360 :j5884*

**An unusual photodermatosis**  
*BMJ 2018; 360 :k68*

**Surf cultures . . . and other stories**  
*BMJ 2018; 360 :k397*

**British Medical Journal**  
**10 February 2018(vol 360, issue 8140)**

**Assisted dying: it’s time to poll UK doctors**  
*BMJ 2018; 360 :k593*

**Health secretary orders review into use of medical manslaughter**  
*BMJ 2018; 360 :k592*

**Fund IVF fully to lower rates of multiple pregnancies, says royal college**  
*BMJ 2018; 360 :k548*

**Seven days in medicine: 31 January to 6 February 2018**  
*BMJ 2018; 360 :k573*

**Sixty seconds on . . . Heineken**

*BMJ 2018; 360 :k557*

**BMA took legal action to keep doctors' bonus scheme**

*BMJ 2018; 360 :k569*

**Doctors should state clearly that vaping is much lower risk than smoking, says report**

*BMJ 2018; 360 :k575*

**Vaginal mesh procedures need compulsory register, says royal college**

*BMJ 2018; 360 :k586*

**Surgeon who faked keyhole experience is jailed for six years**

*BMJ 2018; 360 :k574*

**India's antibiotic combinations thwart efforts to curb drug resistance, say researchers**

*BMJ 2018; 360 :k560*

**US's \$2bn annual spend on dry eye disease "brings tears to your eyes," say critics**

*BMJ 2018; 360 :k492*

**Muscle bound: five minutes with Greg James**

*BMJ 2018; 360 :k558*

**Trump marches to wrong beat**

*BMJ 2018; 360 :k580*

**Bringing Vioxx back to market**

*BMJ 2018; 360 :k242*

**Nucleic acid based therapies: developing frontier for precision medicine**

*BMJ 2018; 360 :k223*

**Most UK doctors support assisted dying, a new poll shows: the BMA's opposition does not represent members**

*BMJ 2018; 360 :k301*

**Assisted dying in US and Canada: controversy subsides after legalisation**

*BMJ 2018; 360 :k503*

**Should doctor assisted dying be legal?**

*BMJ 2018; 360 :k562*

**Commentary: Palliative care and assisted dying are not mutually exclusive**

*BMJ 2018; 360 :k544*

**Patient Commentary: "I don't want to go to Switzerland, and I don't want to attempt suicide"**

*BMJ 2018; 360 :k542*

**How should doctors use e-portfolios in the wake of the Bawa-Garba case?**

*BMJ 2018; 360 :k572*

**Cardiovascular outcomes associated with canagliflozin versus other non-gliflozin antidiabetic drugs: population based cohort study**

*BMJ 2018; 360 :k119*

**Effectiveness of a childhood obesity prevention programme delivered through schools, targeting 6 and 7 year olds: cluster randomised controlled trial (WAVES study)**

*BMJ 2018; 360 :k211*

**The failure of anti-obesity programmes in schools**

*BMJ 2018; 360 :k507*

**Five and 10 minute Apgar scores and risks of cerebral palsy and epilepsy: population based cohort study in Sweden**

*BMJ 2018; 360 :k207*

**Margaret McCartney: Mandatory flu vaccination won't fix the NHS**

*BMJ 2018; 360 :k402*

**The president's cognitive health: winning with the MoCA**

*BMJ 2018; 360 :k424*

**David Oliver: Do bed and chair sensors really stop falls in hospital?**

*BMJ 2018; 360 :k433*

**Clinical care and complicity with torture**

*BMJ 2018; 360 :k449*

**Ben Barres: neuroscientist and fighter for diversity**

*BMJ 2018; 360 :k291*

**Clinical errors: I've asked the GMC to investigate me**

*BMJ 2018; 360 :k549*

**Maintaining public confidence in doctors—at what cost?**

*BMJ 2018; 360 :k554*

**Thunderstorm asthma: controlling (deadly) grass pollen allergy**

*BMJ 2018; 360 :k432*

**Man flu: less inflammation but more consequences in men than women**

*BMJ 2018; 360 :k439*

**Man flu is related to health communication rather than symptoms and suffering**

*BMJ 2018; 360 :k450*

**Evolutionary benefit of “man flu”? Try rephrasing the question**

*BMJ 2018; 360 :k455*

**Pride comes before denial of a fall?**

*BMJ 2018; 360 :k438*

**Peppa Pig: a helpful portrayal of visiting the doctor**

*BMJ 2018; 360 :k480*

**“Curious George Goes to the Hospital”: teaching toddlers how good healthcare works**

*BMJ 2018; 360 :k487*

**Management of patients after laparoscopic procedures**

*BMJ 2018; 360 :k120*

**Assessment and management of oesophago-gastric cancer: summary of NICE guidance**

*BMJ 2018; 360 :k213*

**Skin changes after a magnetic resonance imaging scan**

*BMJ 2018; 360 :k77*

**Scrotal calcinosis**

*BMJ 2018; 360 :k65*

**Pancreatic cancer patterns . . . and other stories**

*BMJ 2018; 360 :k534*

**British Medical Journal**  
**17 February 2018(vol 360, issue 8141)**

**Data sharing: making good on promises**

*BMJ 2018; 360 :k710*

**Practices in poor areas are more likely to face CQC sanctions**

*BMJ 2018; 360 :k680*

**GPs are told to amend flu vaccine orders for next season**

*BMJ 2018; 360 :k602*

**Seven days in medicine: 7-13 February 2018**

*BMJ 2018; 360 :k687*

**Sixty seconds on . . . Xanax**

*BMJ 2018; 360 :k659*

**GP inspections: are sanctions holding back improvement in poor areas?**

*BMJ 2018; 360 :k682*

**“Son” at risk of inheriting of cancer can test DNA of dead man who might be his father**

*BMJ 2018; 360 :k644*

**Ticks transmitting Lyme disease are found in a third of Britain, mainly the south**  
*BMJ 2018; 360 :k692*

**GP who squeezed and stroked girl's breasts unnecessarily is struck off**  
*BMJ 2018; 360 :k605*

**Discussing dying: five minutes with Paul Cosford**  
*BMJ 2018; 360 :k697*

**A play on mental illness**  
*BMJ 2018; 360 :k704*

**End non-essential use of antimicrobials in livestock**  
*BMJ 2018; 360 :k259*

**Friends and family test should no longer be mandatory**  
*BMJ 2018; 360 :k367*

**Rise of a new superpower: health and China's global trade ambitions**  
*BMJ 2018; 360 :k595*

**Wanted: a WhatsApp alternative for clinicians**  
*BMJ 2018; 360 :k622*

**Ischaemic stroke, haemorrhage, and mortality in older patients with chronic kidney disease newly started on anticoagulation for atrial fibrillation: a population based study from UK primary care**  
*BMJ 2018; 360 :k342*

**Consumption of ultra-processed foods and cancer risk: results from NutriNet-Santé prospective cohort**  
*BMJ 2018; 360 :k322*

**Ultra-processed foods and cancer**  
*BMJ 2018; 360 :k599*

**Data sharing and reanalysis of randomized controlled trials in leading biomedical journals with a full data sharing policy: survey of studies published in The BMJ and PLOS Medicine**  
*BMJ 2018; 360 :k400*

**Data sharing in medical research**  
*BMJ 2018; 360 :k510*

**Margaret McCartney: The NHS shouldn't have to pick up the bill for private screening tests**

*BMJ 2018; 360 :k598 (Published 13 February 2018)*

**Knocking out written reflections**

*BMJ 2018; 360 :k546 (Published 02 February 2018)*

**David Oliver: The Bawa-Garba case, doctors, and the GMC—what next?**

*BMJ 2018; 360 :k646 (Published 13 February 2018)*

**Follow-up for patients with metal-on-metal hip replacements: are the new MHRA recommendations justified?**

*BMJ 2018; 360 :k566 (Published 13 February 2018)*

**Mathilde Krim: doyenne of AIDS research funding in the US**

*BMJ 2018; 360 :k403 (Published 26 January 2018)*

**We need a review of all sepsis deaths, not the conviction of health professionals**

*BMJ 2018; 360 :k629 (Published 12 February 2018)*

**My burning issues for 2018: increasing costs and training non-doctors**

*BMJ 2018; 360 :k640 (Published 13 February 2018)*

**Everyone with asthma should have a metered dose inhaler and a spacer**

*BMJ 2018; 360 :k648 (Published 15 February 2018)*

**Patients find it easy to select data they don't want to share**

*BMJ 2018; 360 :k649 (Published 15 February 2018)*

**Randomised trials are not the only evidence, and for some questions they may not be the best**

*BMJ 2018; 360 :k662 (Published 14 February 2018)*

**Intrapartum cardiotocography and pattern recognition**

*BMJ 2018; 360 :k664 (Published 14 February 2018)*

**Electronic fetal heart rate monitoring: we need new research approaches**

*BMJ 2018; 360 :k658 (Published 14 February 2018)*

**Second letter to the GMC chair regarding Hadiza Bawa-Garba**

*BMJ 2018; 360 :k667 (Published 13 February 2018)*

**GMC responds to concerns raised by Bawa-Garba case**

*BMJ 2018; 360 :k660 (Published 09 February 2018)*

**Antibiotics after incision and drainage for uncomplicated skin abscesses: a clinical practice guideline**

*BMJ 2018; 360 :k243 (Published 06 February 2018)*

**Appointment day—the tip of an iceberg**

*BMJ 2018; 360 :k430 (Published 14 February 2018)*

**Managing migraine in pregnancy**

*BMJ 2018; 360 :k80 (Published 25 January 2018)*

**A child with a painless, deformed wrist**

*BMJ 2018; 360 :k246 (Published 14 February 2018)*

**Neuroarthropathy 11 years after pancreas transplantation**

*BMJ 2018; 360 :k340 (Published 14 February 2018)*

**Continuous blood pressure checks . . . and other stories**

*BMJ 2018; 360 :k607 (Published 15 February 2018)*

**British Medical Journal  
27 February 2018 (vol 360, issue 8142)**

**Calling all doctorpreneurs**

*BMJ 2018; 360 :k827*

**Large study is “robust” evidence of link between chronic heavy drinking and dementia**

*BMJ 2018; 360 :k814*

**Scottish GPs resign from BMA in protest at new contract**

*BMJ 2018; 360 :k805*

**Seven days in medicine: 14-20 February 2018**

*BMJ 2018; 360 :k799*

**Sixty seconds on . . . malnutrition**

*BMJ 2018; 360 :k789*

**Doctors’ language tests: five minutes with Ceri Butler**

*BMJ 2018; 360 :k806*

**Many CCGs are failing to boost mental health funding, BMA warns**

*BMJ 2018; 360 :k815*

**“Tragedy” of 35 deaths from measles in Europe last year is unacceptable, says WHO**

*BMJ 2018; 360 :k795*

**Junior doctor strikes had a “significant impact” on services but did not increase deaths, study finds**

*BMJ 2018; 360 :k782*

**“Muddy waters” surround evidence for opt-out system of organ donation, says surgeon**

*BMJ 2018; 360 :k744*

**GMC pushes for automatic erasure when a doctor is convicted of a serious crime**

*BMJ 2018; 360 :k755*

**The art of giving life**

*BMJ 2018; 360 :k824*

**Failing health of the United States**

*BMJ 2018; 360 :k496*

**Idalopirdine: another disappointment for people with dementia**

*BMJ 2018; 360 :k753*

**Risks of reformulation: French patients complain after Merck modifies levothyroxine pills**

*BMJ 2018; 360 :k714*

**Doctors developing apps to try to modernise the NHS**

*BMJ 2018; 360 :k685*

**Outcomes of non-invasive diagnostic modalities for the detection of coronary artery disease: network meta-analysis of diagnostic randomised controlled trials**

*BMJ 2018; 360 :k504*

**Maternal thyroid function and child educational attainment: prospective cohort study**

*BMJ 2018; 360 :k452*

**Mild thyroid dysfunction in pregnancy and children’s educational performance**

*BMJ 2018; 360 :k636*

**Trimethoprim use for urinary tract infection and risk of adverse outcomes in older patients: cohort study**

*BMJ 2018; 360 :k341*

**Margaret McCartney: Do we want an NHS that depends on outsourcing?**

*BMJ 2018; 360 :k670*

**The new chest x ray**

*BMJ 2018; 360 :k769*

**David Oliver: Getting serious about prevention**

*BMJ 2018; 360 :k583*

**Studying new antibiotics for multidrug resistant infections: are today's patients paying for unproved future benefits?**

*BMJ 2018; 360 :k587*

**Arnold Maran: otolaryngologist who became known as the "Voice Doctor"**

*BMJ 2018; 360 :k437*

**New Scottish GP contract increases risk for remote and rural communities**

*BMJ 2018; 360 :k762*

**"First, do no harm" is true for NHS management too**

*BMJ 2018; 360 :k656*

**Dietitians' advice is evidence based and scientific**

*BMJ 2018; 360 :k650*

**Trivalent flu vaccine may provide cross protection of circulating influenza B**

*BMJ 2018; 360 :k725*

**Vaccine development might be handled more effectively in biotech companies than in academia**

*BMJ 2018; 360 :k758*

**Misunderstanding the goals of animal research**

*BMJ 2018; 360 :k759*

**GMC chair's reply to Nick Ross's second letter regarding Hadiza Bawa-Garba**

*BMJ 2018; 360 :k765*

**Deep vein thrombosis**

*BMJ 2018; 360 :k351*

**Degenerative cervical myelopathy**

*BMJ 2018; 360 :k186*

**Atypical chest pain in an older woman**

*BMJ 2018; 360 :k345*

**Blisters and a fever**

*BMJ 2018; 360 :k568*

**Spaceflight associated neuro-ocular syndrome . . . and other stories**

*BMJ 2018; 360 :k716*

**Zulfiqar Bhutta: A better world for children**

*BMJ 2018; 360 :k638*

**Aah! Aha! Ha-Ha!: Building a creative nation from the ground up (941)**

*Raghavan, Ramji*

**Avoid plastic banners (943)**

*Kesava Rao, K.*

**Global Knowledge Index 2017 (943)**

*Prathap, Gangan*

**Kuldhara devastation and the great exodus (944)**

*Bahadur, Tej; Pandya, Aalok; Singh, Raghuv eer*

**Response by (946)**

*Roy, A. B.; Bhu, Harsh; Sharma, Pankaj; Vaishnav, Kishan*

**Jörg Hacker (951)**

*Priya, S.*

**Mega science versus small science: remarks on scientific research in India (953)**

*Majumdar, Parthasarathi; Mukherjee, Dipak Kumar*

**High impact factor journals have more publications than expected (955)**

*Liu, Fang; Guo, Wenbo; Zuo, Chao*

**Terrain attributes of sacred grove locations point towards conscious spatial delineation (957)**

*Bhagyanathan, Anjana; Kasthurba, A. K.; Thampi, Santosh G.; Dhayanithy, Deepak*

**Similarity in Ph D thesis in state universities is less than 10% (959)**

*Biji, C. L.; Senan, Veena; Nair, Achuthsankar S.*

**Breaking of Larsen C from Antarctica (961)**

*Jayaprasad, P.; Ahmad, Touseef; Maity, Saroj; Misra, Arundhati*

**Altered habitats, altered behaviours: use of plastic in nest building by Indian palm squirrel (963)**

*Mohan, K.; Singh, Mewa*

**A cost-effective ground pollination system for hybridization in tall coconut palms (964)**

*Deva Kumar, K.; Arumuganathan, T.; Thomas, R. J.; Niral, V.; Karun, Anitha; Chowdappa, P.*

**Understanding the Aryan debate: population genetic concepts and frameworks (971)**

*Majumder, Partha P.*

**Mangrove forests of India (976)**

*Kathiresan, K.*

**Moving beyond phenology: new directions in the study of temporal dynamics of tropical insect communities(982)**

*Molleman, Freerk*

**Understanding the linkages between climate change and forest (987)**

*Devi, Rinku Moni; Patasaraiya, Maneesh Kumar; Sinha, Bhaskar; Saran, Sameer; Dimri, A. P.; Jaiswal, Rajeev*

**Speciality rice biodiversity of Kerala: need for incentivising conservation in the era of changing climate(997)**

*Gopi, Girigan; Manjula, M.*

**Quantitative analysis of marker-based watershed image segmentation (1007)**

*Madhumitha, S.; Manikandan, M.*

**A target imaging method of multiple-input-multiple-output ground penetrating radar-based on direction of arrival estimation (1014)**

*Jianjun, Xi; Ling, Huang*

**Regional scale analysis of climate extremes in an SRM geoengineering simulation, Part 1: precipitation extremes(1024)**

*Muthyala, Rohi; Bala, Govindasamy; Nalam, Aditya*

**Regional scale analysis of climate extremes in an SRM geoengineering simulation, Part 2: precipitation extremes(1036)**

*Muthyala, Rohi; Bala, Govindasamy; Nalam, Aditya*

**Scaling of hydraulic functions in heterogeneous soil using nonlinear least squares minimization method(1046)**

*Ahmed, Akram*

**Changes and vertical distribution characteristics of soil organic carbon in different land cover types in Honghe wetland of Sanjiang Plain, China (1055)**

*Liang, Yukai; Dong, Weihong; Wu, Xianchang; Xie, Wei*

**Calcite precipitation by *Rhodococcus* sp. isolated from Kotumsar cave, Chhattisgarh, India (1063)**

*Baskar, Sushmitha; Chalia, Swati; Baskar, Ramanathan*

**Multivariate analysis of deboning data for classifying Hanwoo (Korean native cattle) by gender (1075)**

*Shim, Joon-Yong; Kim, Ha-Yeong; Cho, Byoung-Kwan; Yang, Seung Hwan; Mo, Changyeun; Kwon, Kyung Do; Kim, Jin-Hyoung; Lee, Wang-Hee*

**Quality and impact of GPSRO observations from Megha-Tropique satellite on NGFS model (1083)**

*Johny, C. J.; Prasad, V. S.*

**Comparative analysis of grain quality and nutraceutical properties of selected rice varieties from Kerala(1088)**

*Shylaraj, K. S.; Nadh, Soumya G.; Chandran, Shimi K.*

**Dynamics of shifting cultivation in relation to slope and elevation in parts of Nagaland, India (1094)**

*Nongkynrih, Jenita Mary; Pohshna, Chwadaka; Sarma, Kamani Kanta*

**Role of antagonistic yeast *Candida tropicalis* YZ27 on postharvest life and quality of litchi cv. Bombai(1100)**

*Yeka Zhimo, V.; Saha, Jayanta; Singh, Balveer; Chakraborty, Ivi*

**Surface water quality in sacred groves of Garhwal Himalayan region, India (1105)**

*Jana, Purna; Wotsa, Kaboli; Dasgupta, Sabyasachi; Todaria, Nagendra P.*

**Kinematics and timing of brittle–ductile shearing of Mylonites along the Bok Bak fault, Peninsular Malaysia(1110)**

*Salmanfarsi, Ahmad Faiz; Shuib, Mustaffa Kamal; Fatt, Ng Tham; Mohamad Zulkifley, Mohamad Tarmizi*

**Coral-killing sponge *Terpios hoshinota* invades the corals of Gulf of Mannar, Southeast India (1117)**

*Diraviya Raj, K.; Selva Bharath, M.; Mathews, G.; Aeby, Greta S.; Patterson Edward, J. K.*

**Capturing the Cosmic Light: A Handbook of Astrophotography, Sathyakumar P. M. Sharma (1120)**

*Singh, K. P.*

**Clouds: Nature and Culture, Richard Hamblyn (1120)**

*Sharma, Sudhirendar*

**Annual Review of Physiology, 2017, David Julius and David E. Clapham (eds) (1121)**

*Vaz, Mario*

**Baldev Raj (1947–2018) (1123)**

*Bhanu Sankara Rao, K.; Venkatraman, B.*

**Engine (1149)**

*Dattagupta, Sushanta*

**Biofuels for energy security (1151)**

*Lenin Babu, K.*

**CWUR Subject Rankings 2017 (1151)**

*Prathap, Gangan*

**Emerging trend of pharmacoeconomics and health outcomes research in India(1153)**

*Suhas, B. S.; Pavan, D.; Gaurav, K.; Ahiawodzi, P. D.; Ligade, V. S.*

**Representation of physical processes in weather and climate models (1155)**

*Mukhopadhyay, P.; Nanjundiah, Ravi S.*

**Intrinsically disordered proteins (1156)**

*Herlekar, Ipsita*

**Real-time monitoring of black carbon aerosols in the glaciated valley of northwestern Indian Himalaya(1161)**

*Negi, Pyar Singh*

**Effectiveness of amino acids for carbon storage and utilization applications (1163)**

*Prasad, Pinnelli S. R.; Kiran, Burla Sai; Sain, Kalachand*

**Low phytic acid peanut: a potential tool to overcome mineral malnutrition in humans (1165)**

*Ajay, B. C.; Kambiranda, D.; Bera, S. K.; Kumar, Narendra; Gangadhar, K.; Abdul Fiyaz, R.; Ramya, K. T.*

**Assessing the quality of higher education institutions in India: an alternative framework (1167)**

*Mukhopadhyay, Pranab; Tapaswi, Murari P.; Sudarsan, P. K.; Sudarsan, Kavya*

**Collaboration patterns of Indian scientists in organic chemistry (1174)**

*Garg, K. C.; Kumar, S.; Bebi*

**Policy as a driver of economic growth: historical evidence from the Indian pharmaceutical industry(1181)**

*Chandran, Nisha; Brahmachari, Samir K.*

**Breeding of new ornamental varieties: Rose (1194)**

*Datta, S. K.*

**A comparative study to elucidate the inhibitory mechanism of a 6-mer fragment of amyloid-beta 42 peptide as a potential therapeutic in Alzheimer's disease: insights from molecular dynamics simulations (1207)**

*Dutta, Mary; Mattaparthi, Venkata Satish Kumar*

**In vitro and in silico validation of anti-cobra venom activity and identification of lead molecules in *Aegle marmelos* (L.) Correa (1214)**

*Nisha, N. C.; Sreekumar, S.; Evans, D. A.; Biju, C. K.*

**Antioxidant and nutritional potential of some underutilized leafy vegetables consumed by tribals of Jharkhand, India (1222)**

*Srivastava; Pan, R. S.; Bhatt, B. P.*

**Enhanced oil accumulation in tobacco (*Nicotiana tabacum* L.) leaves by ectopic overexpression of VgDGAT1a for renewable production of biofuels (1234)**

*Gao, Chang-Yong; Mao, Xue; Shang, Hong-Qin; Li, Fang; Li, Run-Zhi*

**A simplified soil nutrient information system: study from the North East Region of India (1241)**

*Padua, Shelton; Chattopadhyay, T.; Bandyopadhyay, S.; Ramchandran, S.; Jena, R. K.; Ray, P.; Deb Roy, P.; Baruah, U.; Sah, K. D.; Singh, S. K.; Ray, S. K.*

**Effects of root properties and branching characteristics on soil reinforcement in the Jinyun Mountain, China(1250)**

*Song, Shuangshuang; Wang, Yunqi; Sun, Baoping; Li, Yunpeng*

**Isolation and selection of cellulose-degrading microorganisms for utilization along with earthworms in efficient conversion of municipality waste mix to compost (1261)**

*Devi, Sanasam Shantibala; Devi, Nongthombam Grihalakshmi; Kalita, Mohan Chandra; Talukdar, Narayan Chandra*

**Socio-economic costing of road traffic accidents: evidence from Nagpur city, Maharashtra, India(1275)**

*Bora, Bhaswati; Landge, Vishrut; Dalai, Bahuguna*

**Impact of tropical volcanic eruptions on Hadley circulation using a high-resolution AGCM (1284)**

*Dogar, Muhammad Mubashar*

**Electron density, interaction energy and hydrogen-bond radius of C–H...O interaction (1295)**

*Parajuli, R.*

**A critical analysis of the ‘UGC-approved list of journals’ (1299)**

*Patwardhan, Bhushan; Nagarkar, Shubhada; Gadre, Shridhar R.; Lakhota, Subhash C.; Katoch, Vishwa Mohan; Moher, David*

**Projection of climate change scenarios in the Kabul River Basin, Afghanistan (1304)**

*Sidiqi, Massouda; Shrestha, Sangam; Ninsawat, Sarawut*

**Influence of open and polyhouse conditions on soil carbon dioxide emission from Amaranthus plots with different nutrient management practices under changing climate scenario (1311)**

*Surendran, U.; Vijayan, Aswathy K.; Bujair, V.; Joseph, E. J.*

**Odd–even traffic rule implementation during winter 2016 in Delhi did not reduce traffic emissions of VOCs, carbon dioxide, methane and carbon monoxide (1318)**

*Chandra, P. B.; Sinha, V.; Hakkim, H.; Kumar, A.; Pawar, H.; Mishra, A. K.; Sharma, G.; Pallavi; Garg, S.; Ghude, Sachin D.; Chate, D. M.; Pithani, Prakash; Kulkarni, Rachana; Jenamani, R. K.; Rajeevan, M.*

**Effective weed control strategy in tomato kitchen gardens – herbicides, mulching or manual weeding(1325)**

*Awan, Daud Ahmad; Ahmad, Faheem; Ashraf, Sharmin*

**Divergence studies of white willow (*Salix alba* L.) germplasm (1330)**

*Paray, O. A.; Gangoo, S. A.*

**Estimating net primary productivity of croplands in Indo-Gangetic Plains using GOME-2 sun-induced fluorescence and MODIS NDVI (1333)**

*Patel, N. R.; Padalia, Hitendra; Devadas, R.; Huete, A.; Senthil Kumar, A.; Krishna Murthy, Y. V. N.*

**Detection of coastal landforms in a deltaic area using a multi-scale object-based classification method(1338)**

*Martha, Tapas R.; Mohan Vamsee, A.; Tripathi, Vikas; Vinod Kumar, K.*

**Occupancy time-based passenger car equivalents at unsignalized intersections in India (1346)**

*Mohan, Mithun; Chandra, Satish*

**Finite Elements: Theory and Algorithms. Sashikumaar Ganesan and Lutz Tobiska (eds) (1353)**

*Gudi, T.*

**Annual Review of Public Health, Vol. 38. Jonathan E. Fielding, Ross C. Brownson and Lawrence W. Green (eds)(1353)**

*Vaz, Mario*

**Figs of Eastern Ghats, India. J. V. Sudhakar, N. Chandra Mohan Reddy and G. V. S. Murthy (1355)**

*Udayan, P. S.*

**Rajeevan, M.; Srinivasan, J.**

*Shanti Lal Kayastha (1924–2018) (1357)*

**Medical stores in 1865, pharmacist training and pharmacopoeias in India until the launch of the Indian Pharmacopoeia in 1955 (1358)**

*Raman, Ramya; Raman, Anantanarayanan*

- Can SGLT2 Inhibitors Cause Acute Renal Failure? Plausible Role for Altered Glomerular Hemodynamics and Medullary Hypoxia**  
*Auryan Szalat, Amichai Perlman, Mordechai Muszkat, Mogher Khamaisi...* 239-252
- Neuropsychiatric Events Associated with Leukotriene-Modifying Agents: A Systematic Review**  
*Sharon W. Y. Law, Angel Y. S. Wong, Shweta Anand, Ian C. K. Wong...* 253-265
- Utilisation and Safety of Deferasirox: Results from an Observational Cohort Study in England**  
*Vicki Osborne, Miranda Davies, Deborah Layton, Saad A. W. Shakir* 267-275
- Severe Physical Complications among Survivors of Stevens–Johnson Syndrome and Toxic Epidermal Necrolysis**  
*Cristina Olteanu, Neil H. Shear, Hall F. Chew, Rena Hashimoto...* 277-284
- Risk of Psoriasis Following Terbinafine or Itraconazole Treatment for Onychomycosis: A Population-Based Case-Control Comparative Study**  
*Hsien-Yi Chiu, Wei-Lun Chang, Tsen-Fang Tsai, Yi-Wen Tsai, Ming-Neng Shiu* 285-295
- Evaluation of ‘Definite’ Anaphylaxis Drug Allergy Alert Overrides in Inpatient and Outpatient Settings**  
*Adrian Wong, Diane L. Seger, Sarah P. Slight, Mary G. Amato...* 297-302
- Using Human ‘Experiments of Nature’ to Predict Drug Safety Issues: An Example with PCSK9 Inhibitors**  
*Rebecca N. Jerome, Jill M. Pulley, Dan M. Roden, Jana K. Shirey-Rice...* 303-311
- Reported Adverse Events with Painkillers: Data Mining of the US Food and Drug Administration Adverse Events Reporting System**  
*Jae Min, Vicki Osborne, Allison Kowalski, Mattia Proserpi* 313-320
- Comment on: “Adverse Drug Reaction-Related Hospitalizations in Elderly Australians: A Prospective Cross-Sectional Study in Two Tasmanian Hospitals”**  
*Mona Kargar, Alireza Ahmadvand, Kheirollah Gholami* 321-322
- Authors’ Reply to Mona Kargar and Colleagues’ Comment on “Adverse Drug Reaction-Related Hospitalizations in Elderly Australians: A Prospective Cross-Sectional Study in Two Tasmanian Hospitals”**  
*Nibu Parameswaran Nair, Leanne Chalmers, Bonnie J. Bereznicki, Colin Curtain* 323-324

**Outcomes, Access, and Cost Issues Involving PCSK9 Inhibitors to Lower LDL-Cholesterol**

*Thomas F. Whayne*

287-291

**Overview of Current Drugs and Molecules in Development for Spinal Muscular Atrophy Therapy**

*Hannah K. Shorrock, Thomas H. Gillingwater, Ewout J. N. Groen*

293-305

**Pharmacotherapy for Refractory and Super-Refractory Status Epilepticus in Adults**

*Martin Holtkamp*

307-326

**Efficacy and Safety of Tiotropium in Children and Adolescents**

*Eckard Hamelmann, Stanley J. Szeffler*

327-338

**Prevention and Treatment of Chronic Postsurgical Pain: A Narrative Review**

*Arnaud Steyaert, Patricia Lavand'homme*

339-354

**Belimumab: A Review in Systemic Lupus Erythematosus**

*Hannah A. Blair, Sean T. Duggan*

355-366

**Eculizumab: A Review in Generalized Myasthenia Gravis**

*Sohita Dhillon*

367-376

**Landiolol: A Review in Tachyarrhythmias**

*Yahiya Y. Syed*

377-388

**Netarsudil Ophthalmic Solution 0.02%: First Global Approval**

*Sheridan M. Hoy*

389-396

**Correction to: Daratumumab: A Review in Relapsed and/or Refractory Multiple Myeloma**

*Hannah A. Blair*

397

**Generic Substitution of Orphan Drugs for the Treatment of Rare Diseases: Exploring the Potential Challenges**

*Antonello Di Paolo, Elena Arrigoni*

399-410

**Recent Advances in Pharmacotherapy for Migraine Prevention: From Pathophysiology to New Drugs**

*Jonathan Jia Yuan Ong, Diana Yi-Ting Wei, Peter J. Goadsb*

411-437

**Therapeutic Drug Monitoring of Beta-Lactams and Other Antibiotics in the Intensive Care Unit: Which Agents, Which Patients and Which Infections?**

*Anouk E. Muller, Benedikt Huttner, Angela Huttner*

439-451

**Effect of Ezetimibe Monotherapy on Plasma Lipoprotein(a) Concentrations in Patients with Primary Hypercholesterolemia: A Systematic Review and Meta-Analysis of Randomized Controlled Trials**

*Kamal Awad, Dimitri P. Mikhailidis, Niki Katsiki, Paul Muntner, Maciej Banach*

453-462

**Switching Reference Medicines to Biosimilars: A Systematic Literature Review of Clinical Outcomes**

*Hillel P. Cohen, Andrew Blauvelt, Robert M. Rifkin, Silvio Danese...*

463-478

**Ferric Carboxymaltose: A Review in Iron Deficiency**

*Lesley J. Scott*

479-493

**Brodalumab: A Review in Moderate to Severe Plaque Psoriasis**

*Hannah A. Blair*

495-504

**Benralizumab: First Global Approval**

*A. Markham*

505-511

**Ertugliflozin: First Global Approval**

*Anthony Markham*

513-519

**Correction to: Lonoctocog Alfa: A Review in Haemophilia A**

*Zaina T. Al-Salama, Lesley J. Scott*

521

**Correction to: Outcomes Associated with Generic Drugs Approved Using Product-Specific Determinations of Therapeutic Equivalence**

*Joshua J. Gagne, Jennifer M. Polinski, Wenlei Jiang, Sarah K. Dutcher, Jing Xie*

523-524

**Peptides as a strategy against biofilm-forming microorganisms: Structure-activity relationship perspectives**

*Rafael Gomes Von Borowski, Alexandre José Macedo, Simone Cristina Baggio Gnoatto*

114-137

**Tacrolimus: An updated review on delivering strategies for multifarious diseases**

*Divya Dheer, Jyoti, Prem N. Gupta, Ravi Shankar*

217-227

**Triclosan and its derivatives as antimycobacterial active agents**

*Rudolf Vosátka, Martin Krátký, Jarmila Vinšová*

318-331

**Synthesis and characterization of IUdR loaded PEG/PCL/PEG polymersome in mixed DCM/DMF solvent: Experimental and molecular dynamics insights into the role of solvent composition and star architecture in drug dispersion and diffusion**

*Sepideh Khoee, Ali Hashemi, Sajjad Molavipordanjani*

1-12

**Identification and characterization of potential druggable targets among hypothetical proteins of extensively drug resistant Mycobacterium tuberculosis (XDR KZN 605) through subtractive genomics approach**

*Reaz Uddin, Quratulain Nehal Siddiqui, Syed Sikander Azam, Bibi Saima, Abdul Wadood*

13-23

**The possibility of obtaining marketing authorization of orphan pharmaceutical compounding preparations: 3,4-DAP for Lambert-Eaton Myasthenic Syndrome**

*Sofieke de Wilde, Maria G.H. de Jong, Alexander F. Lipka, Henk-Jan Guchelaar, Kirsten J.M. Schimmel*

24-29

**Cyclodextrin-siRNA conjugates as versatile gene silencing agents**

*Meenakshi Malhotra, Matt Gooding, James C. Evans, Daniel O'Driscoll, ... Caitriona M. O'Driscoll*

30-37

**Population pharmacokinetics of articaine with 1:200,000 epinephrine during third molar surgery and simulation of high-dose regimens**

*Yoann Cazaubon, Cédric Mauprivez, Catherine Feliu, Laurent Binet, ... Zoubir Djerada*

38-45

**Population pharmacokinetic evaluation of ADV6209, an innovative oral solution of midazolam containing cyclodextrin**

*Frédéric Marçon, Catherine Guittet, Maria A. Manso, Ingrid Burton, ... Hervé Dupont*

46-54

**Differential effects of hepatic cirrhosis on the intrinsic clearances of sorafenib and imatinib by CYPs in human liver**

*Michael Murray, Tina B. Gillani, Sussan Ghassabian, Robert J. Edwards, Tristan Rawling* 55-63

**Tannic acid (TA): A molecular tool for chelating and imaging labile iron**

*Isara Phiwchai, Wiphawee Yuensook, Natsaree Sawaengsiriphon, Saowalak Krungchanuchat, Chalermchai Pilapong* 64-73

**Preparation and comparison of tacrolimus-loaded solid dispersion and self-microemulsifying drug delivery system by in vitro/in vivo evaluation**

*Taotao Huo, Chun Tao, Minxin Zhang, Qinghong Liu, ... Hongtao Song* 74-83

**Dissolving polyvinylpyrrolidone-based microneedle systems for in-vitro delivery of sumatriptan succinate**

*P. Ronnander, L. Simon, H. Spilgies, A. Koch, S. Scherr* 84-92

**Comparison of blood-brain barrier penetration efficiencies between linear and cyclic all-D-enantiomeric peptides developed for the treatment of Alzheimer's disease**

*Elena Schartmann, Sarah Schemmert, Tamar Ziehm, Leonie H.E. Leithold, ... Antje Willuweit* 93-102

**Mannose-functionalized solid lipid nanoparticles are effective in targeting alveolar macrophages**

*Ana Costa, Bruno Sarmiento, Vítor Seabra* 103-113

**Effect of milling on the plastic and the elastic stiffness of lactose particles**

*Samaneh Pazesh, Ann-Sofie Persson, Jonas Berggren, Göran Alderborn* 138-145

**Mechanochemically induced solid state transformations: The case of raloxifene hydrochloride**

*Yara Santiago de Oliveira, Alcemira Conceição Oliveira, Alejandro Pedro Ayala* 146-154

**Overexpressing cell systems are a competitive option to primary adipocytes when predicting in vivo potency of dual GPR81/GPR109A agonists**

*Joachim Almquist, Daniel Hovdal, Christine Ahlström, Ola Fjellström, ... Monika Sundqvist* 155-165

**Folic acid-modified liposomal drug delivery strategy for tumor targeting of 5-fluorouracil**

*Eskandar Moghimipour, Mohsen Rezaei, Zahra Ramezani, Maryam Kouchak, ... Somayeh Handali* 166-174

**Curcumin-lipoic acid conjugate as a promising anticancer agent on the surface of gold iron oxide nanocomposites: A pH-sensitive targeted drug delivery system for brain cancer theranostics**

*Milad Ghorbani, Bahareh Bigdeli, Leili Jalili-baleh, Hadi Baharifar, ... Mehdi Khoobi*

175-188

**Derivatization of honokiol by integrated acetylation and methylation for improved cutaneous delivery and anti-inflammatory potency**

*Jia-You Fang, Tse-Hung Huang, Chi-Feng Hung, Yu-Ling Huang, ... Chwan-Fwu Lin*

189-198

**Drug transport mechanisms and in vitro release kinetics of vancomycin encapsulated chitosan-alginate polyelectrolyte microparticles as a controlled drug delivery system**

*Janitha M. Unagolla, Ambalangodage C. Jayasuriya*

199-209

**Comparison among different “revealers” in the study of accelerated blood clearance phenomenon**

*Kaifan Liang, Lirong Wang, Yuqing Su, Mengyang Liu, ... Yihui Deng*

210-216

**Assessment of in vivo anti-tumor activity of human umbilical vein endothelial cell vaccines prepared by various antigen forms**

*Ling Zhou, Chunfeng Si, Defang Li, Meiyu Lu, ... Maolei Xu*

228-237

**The effect of 2-hydroxypropyl- $\beta$ -cyclodextrin on the intestinal permeation through mucus**

*Jef Stappaerts, Philippe Berben, Irem Cevik, Patrick Augustijns*

238-244

**Intraocular pressure lowering effect and structure-activity relationship of imidazo[1,2-a]benzimidazole and pyrimido[1,2-a]benzimidazole compounds in ocular normotensive rats: Insight on possible link with hypotensive activity**

*Adrian Julian Marcus, Igor Iezhitsa, Renu Agarwal, Pavel Vassiliev, ... Nafeeza Mohd Ismail*

245-254

**Improved vaginal retention and enhanced antifungal activity of miconazole microsponges gel: Formulation development and in vivo therapeutic efficacy in rats**

*Salwa Salah, Ghada E.A. Awad, Amal I.A. Makhoul*

255-266

**A novel quantification method for serine hydrolases in cellular expression system using fluorophosphate-biotin probe**

*Amira Abdel-Daim, Kayoko Ohura, Teruko Imai*

267-274

**Production and application of HMGB1 derived recombinant RAGE-antagonist peptide for anti-inflammatory therapy in acute lung injury**

*Seonyeong Lee, Chunxian Piao, Gyeongyun Kim, Ji Yeon Kim, ... Minhyung Lee*

275-284

- Effects of two droplet-based dissolving microneedle manufacturing methods on the activity of encapsulated epidermal growth factor and ascorbic acid**  
*Inyoung Huh, Suyong Kim, Huisuk Yang, Mingyu Jang, ... Hyungil Jung* 285-292
- Improving the skin penetration and antifebrile activity of ibuprofen by preparing nanoparticles using emulsion solvent evaporation method**  
*Yiping Deng, Fengjian Yang, Xiuhua Zhao, Lu Wang, ... Mingfang Wu* 293-302
- Improving oral bioavailability of resveratrol by a UDP-glucuronosyltransferase inhibitory excipient-based self-microemulsion**  
*Fei-Fei Yang, Jing Zhou, Xiao Hu, Zhao-Qing Cong, ... Yong-Hong Liao* 303-309
- The effect of formulation additives on in vitro dissolution-absorption profile and in vivo bioavailability of telmisartan from brand and generic formulations**  
*Enikő Borbás, Zsombor K. Nagy, Brigitta Nagy, Attila Balogh, ... Bálint Sinkó* 310-317
- Melt extrusion process for adjusting drug release of poorly water soluble drug felodipine using different polymer matrices**  
*Eirini Palazi, Evangelos Karavas, Panagiotis Barmpalexis, Margaritis Kostoglou, ... Dimitrios N. Bikiaris* 332-345
- Alginate as a potential diphasic solid dispersion carrier with enhanced drug dissolution and improved storage stability**  
*Jian Guan, Qiaoyu Liu, Xiaofei Zhang, Yeli Zhang, ... Shirui Mao* 346-355
- A trade-off between solubility enhancement and physical stability upon simultaneous amorphization and nanonization of curcumin in comparison to amorphization alone**  
*Jerome Jie Long Wong, Hong Yu, Li Ming Lim, Kunn Hadinoto* 356-363
- Involvement of nucleoside transporters in the transcorneal permeation of topically instilled substrates in rabbits in-vivo**  
*Hanuman Prasad Sharma, Nabanita Halder, Sundararajan Baskar Singh, Thirumurthy Velpandian* 364-371
- Effect of poly(ethylene glycol) on insulin stability and cutaneous cell proliferation in vitro following cytoplasmic delivery of insulin-loaded nanoparticulate carriers – A potential topical wound management approach**  
*Dalia H. Abdelkader, Mohamed A. Osman, Sanaa A. El-Gizawy, Susan J. Hawthorne, ... Paul A. McCarron* 372-384
- Learning how to use IAM chromatography for predicting permeability**  
*Giuseppe Ermondi, Maura Vallaro, Giulia Caron* 385-390

**Imitation of phase I metabolism reactions of MAO-A inhibitors by titanium dioxide photocatalysis**

*Maciej Gawlik, Jakub Trawiński, Robert Skibiński*

391-400

**Journal of Pharmaceutical and Biomedical Analysis**  
**Volume 151, 20 March 2018**

**Rapid screening of brain-penetrable antioxidants from natural products by blood-brain barrier specific permeability assay combined with DPPH recognition**

*Junfeng Zhu, Xiaojiao Yi, Jinghui Zhang, Shuqing Chen, Yongjiang Wu*

42-48

**Establishment of a reference standard database for use in the qualitative and semi-quantitative analysis of pharmaceutical contact materials within an extractables survey by GC-MS**

*Steven A. Zdravkovic, Cindy T. Duong, Ashley A. Hellenbrand, Steven R. Duff, Alyssa L. Dreger*

49-60

**Explore the effects of Huang-Lian-Jie-Du-Tang on Alzheimer's disease by UPLC-QTOF/MS-based plasma metabolomics study**

*Li-Min Sun, Bao-Jie Zhu, Hui-Ting Cao, Xin-Yi Zhang, ... Hua-Xu Zhu*

75-83

**Inhibition of UDP-glucose dehydrogenase by 6-thiopurine and its oxidative metabolites: Possible mechanism for its interaction within the bilirubin excretion pathway and 6TP associated liver toxicity**

*Chamitha J. Weeramange, Cassie M. Binns, Chixiang Chen, Ryan J. Rafferty*

106-115

**Multivariate calibration of energy-dispersive X-ray diffraction data for predicting the composition of pharmaceutical tablets in packaging**

*Chiaki Crews, Peter S. Kenny, Daniel O'Flynn, Robert D. Speller*

186-193

**Determination of polymeric impurities in asunaprevir drug substance and product using size exclusion effect of reversed-phase columns**

*Zongyun Huang, Yue Hu, Yan Zha, Robert Perrone, ... William P. Fish*

200-208

**Determining particle size and water content by near-infrared spectroscopy in the granulation of naproxen sodium**

*David Bär, Heiko Debus, Sina Brzenczek, Wolfgang Fischer, Peter Imming*

209-218

**Gas-phase structural characterization of neuropeptides Y Y1 receptor antagonists using mass spectrometry: Orbitrap vs triple quadrupole**

*Eduarda M.P. Silva, Pedro A.M.M. Varandas, Tânia Melo, Cristina Barros, ... Marcela A. Segundo*

227-234

**Anhydrates and hemihydrate of tasimelteon: Synthesis, structure, and pharmacokinetic study**

*Kaihang Liu, Xinbo Zhou, Zhejing Xu, Hongzhen Bai, ... Xiurong Hu* 235-243

**Cathepsin D immobilized capillary reactors for on-flow screening assays**

*Vivian Estevam Cornelio, Marcela Cristina de Moraes, Vanessa de Cassia Domingues, João Batista Fernandes, ... Paulo Cezar Vieira* 252-259

**Development and validation of an in-line NIR spectroscopic method for continuous blend potency determination in the feed frame of a tablet press**

*Fien De Leersnyder, Elisabeth Peeters, Hasna Djalabi, Valérie Vanhoorne, ... Thomas De Beer* 274-283

**Rapid quantification of polysaccharide and the main onosaccharides in *Dendrobium huoshanense* by near-infrared attenuated total reflectance spectroscopy**

*Jing-Wen Hao, Nai-Dong Chen, Cun-Wu Chen, Fu-Cheng Zhu, ... Han Chen* 331-338

**Detection and quantification of phenethylamines in sports dietary supplements by NMR approach**

*Jianping Zhao, Mei Wang, Bharathi Avula, Ikhlas A. Khan* 347-355

**High resolution full scan liquid chromatography mass spectrometry comprehensive screening in sports antidoping urine analysis**

*Wadha Abushareeda, Ariadni Vonaparti, Khadija Al Saad, Moneera Almansoori, ... Costas Georgakopoulos* 10-24

**Ultra-sensitive LC–MS/MS method for the quantification of gemcitabine and its metabolite 2',2'-difluorodeoxyuridine in human plasma for a microdose clinical trial**

*M. van Nuland, M.J.X. Hillebrand, H. Rosing, J.A. Burgers, ... J.H. Beijnen* 25-31

**Identification of metabolites of MDR-1339, an inhibitor of  $\beta$ -amyloid protein aggregation, and kinetic characterization of the major metabolites in rats**

*Jun-Hyeng Son, Yoo-Seong Jeong, Jong-Hwa Lee, Min-Soo Kim, ... Suk-Jae Chung* 61-70

**LC–MS/MS method for simultaneous determination of diethylcarbamazine, albendazole and albendazole metabolites in human plasma: Application to a clinical pharmacokinetic study**

*Yashpal S. Chhonker, Constant Edi, Daryl J. Murry* 84-90

**Simultaneous determination of TPN729 and its five metabolites in human plasma and urine by liquid chromatography coupled to tandem mass spectrometry**

*Yang Liu, Shuguang Shao, Hanlin Song, Xueting Yao, ... Pei Hu* 91-105

**Effective phospholipids removing microelution-solid phase extraction LC-MS/MS method for simultaneous plasma quantification of aripiprazole and dehydro-aripiprazole: Application to human pharmacokinetic studies**

*Aneta Wojnicz, Carmen Belmonte, Dora Koller, Ana Ruiz-Nuño, ... Francisco Abad-Santos*  
116-125

**Influence of glycan modification on IgG1 biochemical and biophysical properties**

*Jake W. Pawlowski, Adriana Bajardi-Taccioli, Damian Houde, Marina Feschenko, ... Igor A. Kaltashov*  
133-144

**Systematic identification of suspected anthelmintic benzimidazole metabolites using LC-MS/MS**

*Marius Majewsky, David Castel, Ludivine Le Dret, Pascal Johann, ... Jürgen Burhenne*  
151-158

**The dynamics of a serum steroid profile after stimulation with intravenous ACTH**

*Johanna M. Lindner, Anna Catharina Suhr, Stefanie H. Grimm, Patrick Möhnle, ... Josef Briegel*  
159-163

**Application of polyacrylamide gel as a new membrane in electromembrane extraction for the quantification of basic drugs in breast milk and wastewater samples**

*Sakine Asadi, Hadi Tabani, Saeed Nojavan*  
178-185

**“Gear mechanism” of bariatric interventions revealed by untargeted metabolomics**

*Paulina Samczuk, Magdalena Luba, Joanna Godzien, Annalaura Mastrangelo, ... Michal Ciborowski*  
219-226

**Differential mobility spectrometry followed by tandem mass spectrometry with multiple ion monitoring for bioanalysis of eptifibatide in rat plasma**

*Tianming Ren, Runzhi Li, Xiangjun Meng, J.Paul Fawcett, ... Jingkai Gu*  
260-265

**Air assisted dispersive liquid-liquid microextraction with solidification of the floating organic droplets (AA-DLLME-SFO) and UHPLC-PDA method: Application to antibiotics analysis in human plasma of hospital acquired pneumonia patients**

*Vincenzo Ferrone, Roberto Cotellese, Maura Carlucci, Lorenzo Di Marco, Giuseppe Carlucci*  
266-273

**Metabolomics analysis of serum reveals the effect of Danggui Buxue Tang on fatigued mice induced by exhausting physical exercise**

*Xiaoyao Miao, Bingkun Xiao, Sufang Shui, Jianyun Yang, ... Junxing Dong*  
301-309

**In vitro evaluation of the biological activities of IgG in seven Chinese intravenous immunoglobulin preparations**

*Shengliang Ye, Dong Li, Fengjuan Liu, Min Lei, ... Changqing Li*  
317-323

**Heparin molecularly imprinted polymer thin film on gold electrode by plasma-induced graft polymerization for label-free biosensor**

*Kouhei Orihara, Atsushi Hikichi, Tomohiko Arita, Hitoshi Muguruma, Yasuo Yoshimi*

324-330

**Evaluation of a novel micro-sampling device, Mitra™, in comparison to dried blood spots, for analysis of praziquantel in Schistosoma haematobium-infected children in rural Côte d'Ivoire**

*Jana Kovač, Gordana Panic, Anna Neodo, Isabel Meister, ... Jennifer Keiser*

339-346

**Beyond the limit of assignment of metabolites using minimal serum samples and 1H NMR spectroscopy with cross-validation by mass spectrometry**

*Ashish Gupta, Deepak Kumar`*

356-364

**“Positive” urine testing for Cannabis is associated with increased risk of traffic crashes**

*Giovanna Del Balzo, Rossella Gottardo, Silvia Mengozzi, Romolo M. Dorizzi, ... Franco Tagliaro*

71-74

**Chemical profiling of Euphorbia fischeriana Steud. by UHPLC-Q/TOF-MS**

*Canjian Wang, Xiaoqi Zhang, Xiaohong Yan, Wencai Ye, ... Yingqiao Jiang*

126-132

**A simple LC–MS/MS method for determination of deferasirox in human plasma: Troubleshooting of interference from ferric ion in method development and its application**

*Tengfei Li, Zhimin Cui, Yan Wang, Wen Yang, ... Li Ding*

145-150

**Development and validation of an UHPLC–MS/MS approach for simultaneous quantification of five bioactive saponins in rat plasma: Application to a comparative pharmacokinetic study of aqueous extracts of raw and salt-processed Achyranthes bidentata**

*Yi Tao, Yingshan Du, Weidong Li, Baochang Cai*

164-169

**Determination of meropenem in endotracheal tubes by in-tube solid phase microextraction coupled to capillary liquid chromatography with diode array detection**

*L. Hakobyan, J. Pla Tolos, Y. Moliner-Martinez, C. Molins-Legua, ... P. Campins-Falco*

170-177

**Target discovery of cytotoxic withanolides from Physalis angulata var. villosa via reactivity-based screening**

*Yi Zhang, Chen Chen, Ya-Long Zhang, Ling-Yi Kong, Jian-Guang Luo*

194-199

**Novel bio analytical method development, validation and application for simultaneous determination of nebivolol and S-amlodipine in human plasma using ultra performance liquid chromatography-tandem mass spectrometry**

*Bhargav M. Patel, Arvind G. Jangid, B.N. Suhagia, Nirmal Desai*

244-251

**Development of a selective and sensitive LC–MS/MS method for the quantification of  $\alpha$ -asarone in mouse plasma and its application to pharmacokinetic studies**

*Prakash Ramalingam, Palanivel Ganesan, Dong-Kug Choi, Young Tag Ko*

284-290

**Nanoscale determination of antiviral drug acyclovir engaging bifunctionality of single walled carbon nanotubes – nafion film**

*Pravin Tarlekar, Afsan Khan, Sanghamitra Chatterjee*

1-9

**Simultaneous quantitative determination of bioactive terpene indole alkaloids in ethanolic extracts of *Catharanthus roseus* (L.) G. Don by ultra high performance liquid chromatography–tandem mass spectrometry**

*Sunil Kumar, Awantika Singh, Brijesh Kumar, Bikarma Singh, ... Mohan Lal*

32-41

**A validated UHPLC method for the determination of caffeoylquinic and di-caffeoylquinic acids in green coffee extracts using an RP-Amide fused-core column**

*Jakub Fibigr, Michaela Majorová, Hana Kočová Vlčková, Petr Solich, Dalibor Šatínský*

291-300

**Effect of *Tinospora cordifolia* aqua-alcoholic extract on pharmacokinetic of Glibenclamide in rat: An herb-drug interaction study**

*Rajanikanta Sahu, Tausif Ahmed, Ramchandra Sangana, Ravindra Punde, Bharat Bhusan*

*Subudhi*

310-316

**Effect of Permeation Enhancers on the Buccal Permeability of Nicotine: Ex vivo Transport Studies Complemented by MALDI MS Imaging**

*Eva Marxen, Liang Jin, Jette Jacobsen, Christian Janfelt...*

*Article:70*

**Temperature-Induced Surface Effects on Drug Nanosuspensions**

*Simone Aleandri, Monica Schönenberger, Andres Niederquell...*

*Article:69*

**Delivery of Methotrexate and Characterization of Skin Treated by Fabricated PLGA Microneedles and Fractional Ablative Laser**

*Hiep X. Nguyen, Ajay K. Banga*

*Article:68*

**Light-Induced Covalent Buffer Adducts to Histidine in a Model Protein**

*Ming Lei, Cynthia Quan, Y. John Wang, Yung-Hsiang Kao...*

*Article:67*

**Preparation of TPP-crosslinked chitosan microparticles by spray drying for the controlled delivery of progesterone intended for estrus synchronization in cattle**

*Ignacio M. Helbling, Carlos A. Busatto, Silvana A. Fioramonti...*

*Article:66*

**Solid-State NMR Investigation of Drug-Excipient Interactions and Phase Behavior in Indomethacin-Eudragit E Amorphous Solid Dispersions**

*Joseph W. Lubach, Jonathan Hau*

*Article:65*

**Access to the CNS: Biomarker Strategies for Dopaminergic Treatments**

*Willem Johan van den Brink, Semra Palic, Isabelle Köhler...*

*Article:64*

**Enhanced Tumor Diagnostic and Therapeutic Effect of Mesoporous Silica Nanoparticle-Mediated Pre-targeted Strategy**

*Gaochao Lv, Ke Li, Ling Qiu, Ying Peng, Xueyu Zhao, Xi Li...*

*Article:63*

**Progesterone PLGA/mPEG-PLGA Hybrid Nanoparticle Sustained-Release System by Intramuscular Injection**

*Bin Xie, Yang Liu, Yuting Guo, Enbo Zhang, Chenguang Pu...*

*Article:62*

**Pregnancy- Associated Changes in Pharmacokinetics and their Clinical Implications**

*Gideon Koren, Gali Pariente*

*Article:61*

**Fabrication of 3-O-sn-Phosphatidyl-L-serine Anchored PLGA Nanoparticle Bearing Amphotericin B for Macrophage Targeting**

*Pankaj K. Singh, Anil K. Jaiswal, Vivek K. Pawar, Kavita Raval...*

*Article:60*

**Carbon Dioxide-Generating PLG Nanoparticles for Controlled Anti-Cancer Drug Delivery**

*Hyeon Jin Jang, Eun Ju Jeong, Kuen Yong Lee*

*Article:59*

**Submicron Protein Particle Characterization using Resistive Pulse Sensing and Conventional Light Scattering Based Approaches**

*Gregory V. Barnett, Julia M. Perhacs, Tapan K. Das...*

*Article:58*

**Novel Core-Interlayer-Shell DOX/ZnPc Co-loaded MSNs@ pH-Sensitive CaP@PEGylated Liposome for Enhanced Synergetic Chemo-Photodynamic Therapy**

*Jinyuan Ma, Hongjie Wu, Yang Li, Zehua Liu, Guihua Liu...*

*Article:57*

**Targeting Suppressive Oligonucleotide to Lymph Nodes Inhibits Toll-like Receptor-9-Mediated Activation of Adaptive Immunity**

*Chunsong Yu, Myunggi An, Evan Jones, Haipeng Liu*

*Article:56*

**Lipids in the Stomach – Implications for the Evaluation of Food Effects on Oral Drug Absorption**

*Mirko Koziolok, Frédéric Carrière, Christopher J. H. Porter*

*Article:55*

**Correction to: Effects of Moisture-Induced Crystallization on the Aerosol Performance of Spray Dried Amorphous Ciprofloxacin Powder Formulations**

*Nivedita Shetty, Lingfei Zeng, Sharad Mangal, Haichen Nie...*

*Article:54*

**Correction to: The Race of 10 Synthetic RNAi-Based Drugs to the Pharmaceutical Market**

*Ricardo Titz-de-Almeida, Catherine David...*

*Article:53*

**Non-profit Drug Research and Development at a Crossroads**

*Szymon Jarosławski, Mondher Toumi, Pascal Auquier...*

*Article:52*

**Exploring Molecular Speciation and Crystallization Mechanism of Amorphous 2-Phenylamino Nicotinic Acid**

*Arjun Kalra, Joseph W. Lubach, Eric J. Munson, Tonglei Li*

*Article:51*

**Strengthening standards, transparency, and collaboration to support medicine evaluation: Ten years of the European Network of Centres for Pharmacoepidemiology and Pharmacovigilance (ENCePP)**

*Xavier Kurz ; Susana Perez- Gutthann;*

245-252

**Assessment of Risk Evaluation and Mitigation Strategies (REMS) for varenicline (Chantix): A multistage patient survey**

*Kandace L. Amend ; Muhammad Younus; Kenneth R. Petronis ; Jingping Mo; John D. Seeger; Robert Gately ; Xiangmei Gu; Cheryl Enger*

253-262

**Prospective surveillance pilot of rivaroxaban safety within the US Food and Drug Administration Sentinel System**

*Elizabeth A. Chrischilles ; Joshua J. Gagne; Bruce Fireman; Jennifer Nelson ; Sengwee Toh; Azadeh Shoabi ; Marsha E. Reichman ; Shirley Wang; Michael Nguyen ; Rongmei Zhang ; Rima Izem; Margie R. Goulding; Mary Ross Southworth ; David J. Graham ; Candace Fuller; Hannah Katcoff; Tiffany Woodworth; Catherine Rogers; Ryan Saliga ; Nancy D. Lin ; Cheryl N. McMahonill- Walraven; Vinit P. Nair ; Kevin Haynes ; Ryan M. Carnahan*

263-271

**Risk factors for medication errors at admission in preoperatively screened patients**

*Marieke M. Ebbens ; Kim B. Gombert- Handoko; Muhammad Al- Dulaimy Patricia M.L.A. van den Bemt ; Elsbeth J. Wesselink*

272-278

**Use of antihypertensive drugs and risk of keratinocyte carcinoma: A meta- analysis of observational studies**

*Huilin Tang ; Shuangshuang Fu; Suodi Zhai; Yiqing Song ; Maryam M. Asgari ; Jiali Han*

279-288

**Relevance of frailty to mortality associated with the use of antipsychotics among community- residing older adults with impaired cognition**

*Colleen J. Maxwell ; Michael A. Campitelli; David B. Hogan ; Christina Diong; Peter C. Austin ; Joseph E. Amuah; Kate Lapane; Dallas P. Seitz; Sudeep S. Gill ; Andrea Gruneir ; Walter P. Wodchis; Susan E. Bronskill*

289-298

**A systematic assessment of key design and performance characteristics of drug exposure registries requested by the U.S. Food and Drug Administration**

*Yanling Zhao ; Ellen Pinnow; Jacqueline M. Major;*

299-306

**Bias from restricting to live births when estimating effects of prescription drug use on pregnancy complications: A simulation**

*Elizabeth A. Suarez ; Suzanne N. Landi; Mitchell M. Conover; Michele Jonsson Funk  
307-314*

**Drug adherence in treatment resistant and in controlled hypertension—Results from the Swedish Primary Care Cardiovascular Database (SPCCD)**

*Lina Holmqvist ; Kristina Bengtsson Boström ; Thomas Kahan ; Linus Schiöler ; Miriam Qvarnström ; Björn Wettermark ; Per Hjerpe ; Jan Hasselström ; Karin Manhem 315-321*

**Exceeding the daily dosing limit of nonsteroidal anti- inflammatory drugs among ibuprofen users**

*David W. Kaufman ; Judith P. Kelly; Deena R. Battista; Mary Kathryn Malone ; Rachel B. Weinstein ; Saul Shiffman 322-331*

**Do FDA label changes work? Assessment of the 2010 class label change for proton pump inhibitors using the Sentinel System's analytic tools**

*Rachel E. Sobel ; Andrew Bate; James Marshall; Kevin Haynes ; Nandini Selvam ; Vinit Nair ; Gregory Daniel ; Jeffrey S. Brown; Robert F. Reynolds 332-339*

**Tamsulosin and the risk of dementia in older men with benign prostatic hyperplasia**

*Yinghui Duan ; James J. Grady ; Peter C. Albertsen ; Z. Helen Wu 340-348*

**Beta testing the potential link between the alpha antagonist tamsulosin and dementia**

*Sudeep S. Gill ; Anthony D. Bai 349-350*

**Risk of rhabdomyolysis from 5-  $\alpha$  reductase inhibitors**

*Blayne Welk ; Eric McArthur ; Michael Ordon ; Jade Dirk ; Stephanie Dixon ; Amit X. Garg 51-555*

**Evaluation of Cannabinoid and Terpenoid Content: Cannabis Flower Compared to Supercritical CO<sub>2</sub> Concentrate**

*Sexton, Michelle; Shelton, Kyle; Haley, Pam; West, Mike:*

**Analytical and Pharmacological Challenges in Cannabis Research**

*Gertsch, Jürg*

213

**Current Perspectives on Biotechnological Cannabinoid Production in Plants**

*Schachtsiek, Julia; Warzecha, Heribert; Kayser, Oliver; Stehle, Felix: 214*

**Effects of Cannabidiol on Morphine Conditioned Place Preference in Mice**

*Markos, James Roland; Harris, Hannah M.; Gul, Waseem; ElSohly, Mahmoud A.; Sufka, Kenneth J.*

221

**Pharmacological Foundations of Cannabis Chemovars**

*Lewis, Mark A.; Russo, Ethan B.; Smith, Kevin M.*

225

**Evaluation of Cannabinoid and Terpenoid Content: Cannabis Flower Compared to Supercritical CO<sub>2</sub> Concentrate**

*Sexton, Michelle; Shelton, Kyle; Haley, Pam; West, Mike*

234

**Extraction Method and Analysis of Cannabinoids in Cannabis Olive Oil Preparations**

*Casiraghi, Antonella; Roda, Gabriella; Casagni, Eleonora; Cristina, Cecilia; Musazzi, Umberto Maria; Franzè, Silvia; Rocco, Paolo; Giuliani, Claudia; Fico, Gelsomina; Minghetti, Paola; Gambaro, Veniero:*

242

**Determination of Acid and Neutral Cannabinoids in Extracts of Different Strains of Cannabis sativa Using GC-FID**

*Ibrahim, Elsayed A.; Gul, Waseem; Gul, Shahbaz W.; Stamper, Brandon J.; Hadad, Ghada M.; Abdel Salam, Randa A.; Ibrahim, Amany K.; Ahmed, Safwat A.; Chandra, Suman; Lata, Hemant; Radwan, Mohamed M.; ElSohly, Mahmoud A.*

250

**Quantitative Determination of  $\Delta^9$ -THC, CBG, CBD, Their Acid Precursors and Five Other Neutral Cannabinoids by UHPLC-UV-MS**

*Wang, Yan-Hong; Avula, Bharathi; ElSohly, Mahmoud A.; Radwan, Mohamed M.; Wang, Mei; Wanas, Amira S.; Mehmedic, Zlatko; Khan, Ikhlas A.*

260

**Full Detection and Quantification of Cannabinoids in Extracts of Cannabis sativa Roots Using LC-MS/MS**

*Gul, Waseem; Gul, Shahbaz W.; Chandra, Suman; Lata, Hemant; Ibrahim, Elsayed A.; ElSohly, Mahmoud A.*

267

**Current perspectives on quinazolines with potent biological activities: A review**

*Tanya Gupta, Ankit Rohilla, Ankita Pathak, Md Jawaid Akhtar, Md Rafi Haider & M. Shahar Yar* 1099-1127

**Synthetic approaches toward the reserpine**

*Zulfiqar Ali Khan, Sohail Anjum Shahzad, Arooj Anjum, Adebayo Tajudeen Bale & Syed Ali Raza Naqvi* 1128-1147

**Nano-Cuo–Au-catalyzed solvent-free synthesis of  $\alpha$ -aminophosphonates and evaluation of their antioxidant and  $\alpha$ -glucosidase enzyme inhibition activities**

*Poola Sreelakshmi, Sarva Santhisudha, Gajjala Raghavendra Reddy, Yakkate Subbarao, Kotha Peddanna, Chippada Apparao & Cirandur Suresh Reddy* 1148-1163

**Synthesis of novel aza-heterocyclic derivatives from diester and diacid chlorides having the dibenzobarrelene skeleton**

*İrfan Çapan & Süleyman Servi* 1164-1171

**New analogs of temporin-LK1 as inhibitors of multidrug-resistant (MDR) bacterial pathogens**

*Zafar Ali Shah, Saba Farooq, Syed Abid Ali, Abdul Hameed, M. Iqbal Choudhary & Farzana Shaheen* 1172-1182

**Facile and efficient synthesis of quinazoline-2,4(1H,3H)-diones through sequential hydrogenation condensation**

*Peng-Xu Wang, Ya-Nan Wang, Zi-Yun Lin, Gang Li & Hai-Hong Huang* 1183-1189

**Facile synthesis of novel  $\alpha$ -methylene-pyrazole-carboxylate substituted imines and trans- $\beta$ -lactams: Versatile synthons for diverse heterocyclic molecules**

*Qudrat Hundal, Shiwani Berry, Dipika Narula, Shamsher S. Bari & Aman Bhalla* 1190-1198

**Synthesis of new  $\alpha$ -hydroxyphosphonates and  $\alpha$ -acetoxyphosphonates**

*Zayed Baccari, M. A. K. Sanhoury, B. Crousse & T. Barhoumi-Slimi* 1199-1205

**CTAB promoted CuI catalyzed green and economical synthesis of 1,4-disubstituted-1,2,3-triazoles**

*Abdul Aziz Ali, Rahul Sharma, Prakash J. Saikia & Diganta Sarma* 1206-1212

**Rapid synthesis of new 2-methyl-7-nitro-5-substituted-2,3-dihydroimidazo[5,1-b]oxazole as potential antibacterial drugs through one-pot cyclization and Suzuki–Miyaura coupling**

**One-pot synthesis of novel 1,2,3-triazole-pyrimido[4,5-c]isoquinoline hybrids and evaluation of their antioxidant activity**

*Sirassu Narsimha, Kumara Swamy Battula & Vasudeva Reddy Nagavelli 1220-1226*

**p-Toluenesulfonic acid-promoted autocatalytic hydrolyzation of 1-tosyl-1,2,3-triazoles**

*Haohao Dong, Dongdong Zhang, Renjie Fang, Qingyang Du, Zhuoya Dong, Hao Wei, Min Shi & Feijun Wang 1227-1234*

**Synthetic Communication**  
**Volume 48 , Issue 11, March 2018**

**Synthesis of six- and seven-membered heterocycles under ultrasound irradiation**

*Navjeet Kaur 1235-1258*

**Photochemical reactions as key steps in five-membered N-heterocycle synthesis**

*Navjeet Kaur 1259-1284*

**Facile one pot multicomponent synthesis of novel 4-(benzofuran-2-yl)-2-(3-(aryl/heteryl)-5-(aryl/heteryl)-4,5-dihydro-1H-pyrazol-1yl)thiazole derivatives**

*Varun Arandkar, Krishnaiah Vaarla & Rajeswar Rao Vedula 1285-1290*

**Efficient dehydrogenation of 1,2,3,4-tetrahydroquinolines mediated by dialkyl azodicarboxylates**

*Saet Byeol Bang & Jinho Kim 1291-1298*

**Iodine-mediated direct synthesis of 3-iodoflavones**

*Avinash M. Patil, Dayanand A. Kamble & Pradeep D. Lokhande 1299-1307*

**Synthesis and antibacterial evaluation of nitrogen containing novel heterocyclic chalcones**

*Reena Kaushik, Mahesh Chand & Subhash C. Jain 1308-1315*

**Primary sulfonamide as a coupling partner: Copper(I)-catalyzed regioselective cross-coupling of 2-nitro benzenesulfonamides with thiol through the cleavage of Ar-SO<sub>2</sub>NH<sub>2</sub> bonds**

*Junmin Chen, Kuo Zhang, Yongli Zhao & Shouzhi Pu 1316-1323*

**A facile regio- and stereoselective synthesis of novel spiro[indolin-3,2'-pyrrolidin]-2-one's via 1,3-dipolar cycloaddition of azomethine ylides**

*Kailasam Saravana Mani & Subramaniam Parameswaran Rajendran 1324-1330*

**Convenient asymmetric synthesis of both enantiomers of 3,4-disubstituted 3,4-dihydro-**

**1,4-benzoxazin-2-ones**

*Eunjee Youk, Wongi Park & Yong Sun Park*

1331-1337

*Nickel-catalyzed regioselective access to dibenzo[c,f]oxocine framework via reductive Heck reaction*

1338-1345

**Diversity-oriented regioselective domino Michael/Aldol reaction of 3-ylideneoxindoles: A direct access to indanol-fused 3-oxindoles**

*Dan-Dan Wang, Qi-Di Wei, Guan-Lian Wang, Yi Gong, Xiong-Li Liu, Gen Zhou, Ying Zhou & Jian-Fei Zhang*

1346-1353

**Rh(III)-catalyzed synthesis of unsymmetrical acridines from aldehydes and azides using transient directing strategy in biomass-derived  $\gamma$ -valerolactone**

*Jun Shen, Xi Liu, Liang Wang, Qun Chen & Mingyang He*

1354-1362

**Montmorillonite K10-catalyzed synthesis of N-fused imino-1,2,4-thiadiazolo isoquinoline derivatives**

*Priya Chacko & Kalegowda Shivashankar*

1363-1376

**A Plea for the Renewal of the ISBR**

*Giovanni Tagliabue, Marcel Kuntz, Henry I. Miller, Klaus Ammann* 229-231

**A Regulatory Perspective on Testing of Biological Activity of Complex Biologics**

*Marianne Saldanha, Prajakta Dandekar, Ratnesh Jain* 231-234

**Thermodynamic Activity-Based Progress Curve Analysis in Enzyme Kinetics**

*Jürgen Pleiss* 234-238

**Genomics-Driven Natural Product Discovery in Actinomycetes**

*Guoqing Niu* 238-241

**Rational Design of Mouse Models for Cancer Research**

*Marietta Landgraf, Jacqui A. McGovern, Peter Friedl, Dietmar W. Hutmacher*  
242-251

**Applied Hologenomics: Feasibility and Potential in Aquaculture**

*Morten T. Limborg, Antton Alberdi, Miyako Kodama, Michael Roggenbuck, ... M. Thomas P. Gilbert* 252-264

**Can We Approach Theoretical Lipid Yields in Microalgae?**

*Ilse M. Remmers, René H. Wijffels, Maria J. Barbosa, Packo P. Lamers* 265-276

**Going Green and Cold: Biosurfactants from Low-Temperature Environments to Biotechnology Applications**

*Amedea Perfumo, Ibrahim M. Banat, Roger Marchant* 277-289

**Point-of-Care Devices Using Disease Biomarkers To Diagnose Neurodegenerative Disorders**

*Ting-Yen Wei, Yun Fu, Kuo-Hsuan Chang, Kun-Ju Lin, ... Chao-Min Cheng* 290-303

**The Engineering Potential of *Rhodospiridium toruloides* as a Workhorse for Biotechnological Applications**

*Young-Kyoung Park, Jean-Marc Nicaud, Rodrigo Ledesma-Amaro* 304-317

**Protein-Based Therapeutic Killing for Cancer Therapies**

*Narora Serna, Laura Sánchez-García, Ugutz Unzueta, Raquel Díaz, ... Antonio Villaverde*

318-335

Trends in Pharmacological Sciences  
Volume 39 , Issue 03, March 2018

**Regulatory Science – An Underappreciated Component of Translational Research**

*Rodney Rouse, Issam Zineh, David G. Strauss*

225-229

**Clinical Success of Drug Targets Prospectively Predicted by In Silico Study**

*Feng Zhu, Xiao Xu Li, Sheng Yong Yang, Yu Zong Chen*

229-231

**Modernizing Human Cancer Risk Assessment of Therapeutics**

*Mark R. Fielden, Lucas D. Ward, Sheroy Minocherhomji, Paul Nioi, ... David Jacobson-Kram*

232-247

**What Can Big Data on Academic Interest Reveal about a Drug? Reflections in**

*Three Major US Databases*

*Igor Kissin*

248-257

**NaV1.7 as a Pharmacogenomic Target for Pain: Moving Toward Precision Medicine**

*Yang Yang, Malgorzata A. Mis, Mark Estacion, Sulayman D. Dib-Hajj, Stephen G. Waxman*

258-275

**Opioid and Psychostimulant Plasticity: Targeting Overlap in Nucleus Accumbens Glutamate Signaling**

*Matthew Hearing, Nicholas Graziane, Yan Dong, Mark J. Thomas*

276-294

**Combination Therapies Targeting HDAC and IKK in Solid Tumors**

*Ivana Vancurova, Mohammad M. Uddin, Yue Zou, Ales Vancura*

295-306

**Targeting the IDO1/TDO2–KYN–AhR Pathway for Cancer Immunotherapy – Challenges and Opportunities**

*Jae Eun Cheong, Lijun Sun*

307-325

Vaccines  
Volume 36, Issue 11, March 2018

**French mandatory vaccine policy**

*Y. Tony Yang, Dorit Rubinstein Reiss*

1323-1325

**Exceptional influenza morbidity in summer season of 2017 in Israel may predict the vaccine efficiency in the coming winter**

*Rakefet Pando, Sivan Sharabi, Michal Mandelboim*

1326-1329

**The National Vaccine Advisory Committee at 30: Impact and opportunity**

*Kimberly M. Thompson, Bruce G. Gellin, Alan R. Hinman, Walter A. Orenstein*

1330-1344

**Construction and evaluation of Bordetella pertussis live attenuated vaccine strain BPZE1 producing Fim3**

*Anne-Sophie Debrie, Loïc Coutte, Dominique Raze, Frits Mooi, ... Camille Locht*

1345-1352

**Vaccination timeliness and co-administration among Kenyan children**

*Nina B. Masters, Abram L. Wagner, Bradley F. Carlson, Matthew L. Boulton*

1353-1360

**Improving human papilloma virus vaccination rates throughout military treatment facilities**

*Rachel Dawson, Keith Lemmon, Nidhi J. Trivedi, Shana Hansen*

1361-1367

**Evaluation on the persistence of anti-HPV immune responses to the quadrivalent HPV vaccine in Chinese females and males: Up to 3.5 years of follow-up**

*Teng Huang, Youping Liu, Yanping Li, Yuqin Liao, ... Rongcheng Li*

1368-1374

**Bordetella pertussis (Bp) disease: Before (2003–2011) and after (2013–2016) maternal immunization strategy in a pediatric hospital**

*Angela Gentile, María del Valle Juárez, María Florencia Lucion, Ana Clara Martínez, ... Alicia Mistchenko*

1375-1380

**PED subunit vaccine based on COE domain replacement of flagellin domain D3 improved specific humoral and mucosal immunity in mice**

*Qianniu Li, Ouyang Peng, Tingting Wu, Zhichao Xu, ... Yongchang Cao*

1381-1388

**Immune parameters to p67C antigen adjuvanted with ISA206VG correlate with protection against East Coast fever**

*Anna Lacasta, Stephen Mwalimu, Elisabeth Kibwana, Rosemary Saya, ... Lucilla Steinaa* 1389-1397

**Long-term immunogenicity of an initial booster dose of an inactivated, Vero cell culture-derived Japanese encephalitis vaccine (JE-VC) and the safety and immunogenicity of a second JE-VC booster dose in children previously vaccinated with an inactivated, mouse brain-derived Japanese encephalitis vaccine**

*Ki Wook Yun, Hoan Jong Lee, Ji Young Park, Hye-Kyung Cho, ... Sung-Ho Cha*

1398-1404

**Routing dependent immune responses after experimental R848-adjuvated vaccination**

*Susan van Aalst, Manon A.A. Jansen, Irene S. Ludwig, Ruurd van der Zee, ... Femke Broere*

1405-1413

**Heterologous human/rat HER2-specific exosome-targeted T cell vaccine stimulates potent humoral and CTL responses leading to enhanced circumvention of HER2 tolerance in double transgenic HLA-A2/HER2 mice**

*Yufeng Xie, Jie Wu, Aizhang Xu, Shahid Ahmeqd, ... Jim Xiang*

1414-1422

**Current status of cerebrospinal meningitis and impact of the 2015 meningococcal C vaccination in Kebbi, Northwest Nigeria**

*Olumide Ajibola, Semeeh Akinwale Omoleke, Olusola Akintoye Omisakin*

1423-1428

**A rapid lateral flow immunoassay for serological diagnosis of pertussis**

*Teppo Salminen, Aapo Knuutila, Alex-Mikael Barkoff, Jussi Mertsola, Qiushui He*

1429-1434

**The impact of immunization programs on 10 vaccine preventable diseases in Italy: 1900–2015**

*Patrizio Pezzotti, Stefania Bellino, Francesca Prestinaci, Simone Iacchini, ... Giovanni Rezza*

1435-1443

**Antigen-dependent effects of divergent selective breeding based on natural antibodies on specific humoral immune responses in chickens**

*T.V.L. Berghof, J.A.J. Arts, H. Bovenhuis, A. Lammers, ... H.K. Parmentier*

1444-1452

**Assessing the reactogenicity of Tdap vaccine administered during pregnancy and antibodies to Bordetella pertussis antigens in maternal and cord sera of Thai women**

*Nasamon Wanlapakorn, Kirsten Maertens, Surasith Chaithongwongwatthana, Donchida Srimuan, ... Elke Leuridan*

1453-1459

**A live attenuated *Vibrio anguillarum* vaccine induces efficient immunoprotection in Tiger puffer (*Takifugu rubripes*)**

*Xiaohong Liu, Chenglong Jiao, Yue Ma, Qiyao Wang, Yuanxing Zhang*

1460-1466

**The impact of vaccination and patient characteristics on influenza vaccination uptake of elderly people: A discrete choice experiment**

*Esther W. de Bekker-Grob, Jorien Veldwijk, Marcel Jonker, Bas Donkers, ... Patrick Bindels*

1467-1476

**Post hoc analysis of the efficacy of the 13-valent pneumococcal conjugate vaccine against vaccine-type community-acquired pneumonia in at-risk older adults**

*José A. Suaya, Qin Jiang, Daniel A. Scott, William C. Gruber, ... Raul E. Isturiz*

1477-1483

**Strangvac: A recombinant fusion protein vaccine that protects against strangles, caused by *Streptococcus equi***

*Carl Robinson, Lars Frykberg, Margareta Flock, Bengt Guss, ... Jan-Ingmar Flock*

1484-1490

**Caregiver and adolescent factors associated with delayed completion of the three-dose human papillomavirus vaccination series**

*Lea E. Widdice, Rebecca Hoagland, S. Todd Callahan, Jessica A. Kahn, ... David I. Bernstein*

1491-1499

**A novel inactivated vaccine against *Lawsonia intracellularis* induces rapid induction of humoral immunity, reduction of bacterial shedding and provides robust gut barrier function**

*F. Roerink, C.L. Morgan, S.M. Knetter, M.-H. Passat, ... E.L. Strait*

1500-1508

**The WHO Tailoring Immunization Programmes (TIP) approach: Review of implementation to date**

*Eve Dubé, Julie Leask, Brent Wolff, Benjamin Hickler, ... Katrine Habersaat*

1509-1515

**Turning up the heat: Effect of new vaccine for children's (VFC) program recommendations for use of temperature monitors upon incorrect product storage adverse event reporting**

*Eileen Wilson, Cong Zhu, Susan Galea, Ann Marko, ... Walter Straus*

1516-1520

**Key steps forward for maternal immunization: Policy making in action**

*R.H. Beigi, S.B. Omer, K.M. Thompson*

1521-1523

**Myocarditis and pericarditis are rare following live viral vaccinations in adults**

*Jennifer Kuntz, Bradley Crane, Sheila Weinmann, Allison L. Naleway, for the Vaccine Safety Datalink Investigator Team*

1524-1527

**Comparison of serum bactericidal and antibody titers induced by two Haemophilus influenzae type b conjugate vaccines: A phase III randomized double-blind study**

*Yukihiro Akeda, Yuka Koizumi, Yohei Takanami, Shuji Sumino, ... Kazunori Oishi*

1528-1532

**Evaluation of a convenient vaccination schedule against hepatitis B in HIV-patients with undetectable HIV viral load**

*Sofia Kourkounti, Theodoros Retsas, Vassilios Papparizos, Antonios Tsimpidakis, ... Dimitrios Rigopoulos*

1533-1536

**Complications of herpes zoster in immunocompetent older adults: Incidence in vaccine and placebo groups in two large phase 3 trials**

*Martina Kovac, Himal Lal, Anthony L. Cunningham, Myron J. Levin, ... Thomas C. Heineman*

1537-1541

**Safety and tolerability of a liquid bovine rotavirus pentavalent vaccine (LBRV-PV) in adults**

*K. Anil, Sajjad Desai, Chetanraj Bhamare, Abhijeet Dharmadhikari, ... Prasad S. Kulkarni*

1542-1544

**Quantification of human complement factor H binding to asexual malaria blood stages by an enzyme-linked immunosorbent assay**

*Nina Simon, Oliver Friedrich, Barbara Kappes*

1545-1547

**Hepatitis B vaccination and the putative risk of central demyelinating diseases – A systematic review and meta-analysis**

*Julie Mouchet, Francesco Salvo, Emanuel Raschi, Elisabetta Poluzzi, ... Bernard Bégaud*

1548-1555

**Mass media effect on vaccines uptake during silent polio outbreak**

*Iftach Sagy, Victor Novack, Michael Gdalevich, Dan Greenberg*

1556-1560

**Immunization with an adjuvanted low-energy electron irradiation inactivated respiratory syncytial virus vaccine shows immunoprotective activity in mice**

*Lea Bayer, Jasmin Fertey, Sebastian Ulbert, Thomas Grunwald* 1561-1569

**Efficacy of a high quality O1/Campos foot-and-mouth disease vaccine upon challenge with a heterologous Korean O Mya98 lineage virus in pigs**

*S. Galdo Novo, V. Malirat, E.D. Maradei, A.R. Pedemonte, ... I.E. Bergmann* 1570-1576

**Use of a new global indicator for vaccine safety surveillance and trends in adverse events following immunization reporting 2000–2015**

*Jiayao Lei, Madhava Ram Balakrishnan, Jane F. Gidudu, Patrick L.F. Zuber* 1577-1582

**High resolution age-structured mapping of childhood vaccination coverage in low and middle income countries**

*C. Edson Utazi, Julia Thorley, Victor A. Alegana, Matthew J. Ferrari, ... Andrew J. Tatem* 1583-1591

**Genetic and subunit vaccines based on the stem domain of the equine influenza hemagglutinin provide homosubtypic protection against heterologous strains**

*Lorena Itatí Ibañez, Cecilia Andrea Caldevilla, Yesica Paredes Rojas, Nora Mattion* 1592-1598

**Quantitative profiling reveals minor changes of T cell receptor repertoire in response to subunit inactivated influenza vaccine**

*Anastasiia L. Sycheva, Mikhail V. Pogorelyy, Ekaterina A. Komech, Anastasia A. Minervina, ... Ilgar Z. Mamedov* 1599-1605

**Intradermal immunization with inactivated swine influenza virus and adjuvant polydi(sodium carboxylatoethylphenoxy)phosphazene (PCEP) induced humoral and cell-mediated immunity and reduced lung viral titres in pigs**

*Royford Magiri, Ken Lai, Alyssa Chaffey, Yan Zhou, ... George Mutwiri* 1606-1613

**13-Valent vaccine serotype pneumococcal community acquired pneumonia in adults in high clinical risk groups**

*Priya Daniel, Chamira Rodrigo, Thomas Bewick, Carmen Sheppard, ... Wei Shen Lim* 1614-1620

**‘The Unhealthy Other’: How vaccine rejecting parents construct the vaccinating mainstream**

*Katie Attwell, David T. Smith, Paul R. Ward* 1621-1626

**Envelope proteins of two HIV-1 clades induced different epitope-specific antibody response**

*Tripti Shrivastava, Sweety Samal, Ashish K. Tyagi, Sandeep Goswami, ... Bimal K. Chakrabarti* 1627-1636

**RTS,S malaria vaccine efficacy and immunogenicity during Plasmodium falciparum challenge is associated with HLA genotype**

*C.M. Nielsen, J. Vekemans, M. Lievens, K.E. Kester, ... C.F. Ockenhouse* 1637-1642

**Effectiveness of acellular pertussis vaccine and evolution of pertussis incidence in the community of Madrid from 1998 to 2015**

*P. Latasa, L. García-Comas, A. Gil de Miguel, M.D. Barranco, ... M. Garrido-Esteba* 1643-1649

**Hepatitis A vaccination coverage among adolescents (13–17 years) in the United States, 2008–2016**

*Noele P. Nelson, David Yankey, James A. Singleton, Laurie D. Elam-Evans* 1650-1659

**Assessing an unmet healthcare demand: A survey of immunisation among homecare patients and their caregivers**

*Süleyman Görpelioglu, Canan Emiroglu, Özlem Suvak, Cenk Aypak, Derya Akbiyik* 1660-1663

**Immunity against measles, mumps, rubella, varicella, diphtheria, tetanus, polio, hepatitis A and hepatitis B among adult asylum seekers in the Netherlands, 2016**

*Gudrun S. Freidl, Alma Tostmann, Moud Curvers, Wilhelmina L.M. Ruijs, Irene K. Veldhuijzen* 1664-1672

**Monoclonal antibody based in vitro potency assay as a predictor of antigenic integrity and in vivo immunogenicity of a Respiratory Syncytial Virus post-fusion F-protein based vaccine**

*Matieyendou Didier Djabbare, Li Yu, Arun Parupudi, Jenny Sun, ... Gautam Sanyal* 1673-1680

**Cost-effectiveness of a potential vaccine candidate for Haemophilus influenzae serotype 'a'**

*Affan Shoukat, Robert Van Exan, Seyed M. Moghadas* 1681-1688

**Multi-antigenic human cytomegalovirus mRNA vaccines that elicit potent humoral and cell-mediated immunity**

*Shinu John, Olga Yuzhakov, Angela Woods, Jessica Deterling, ... Giuseppe Ciaramella* 1689-1699

**Cost of goods sold and total cost of delivery for oral and parenteral vaccine packaging formats**

*Jeff Sedita, Stefanie Perrella, Matt Morio, Michael Berbari, ... Darin Zehrung*

1700-1709

Vaccines

Volume 36, Issue 13, March 2018

**New insights into physiopathology of immunodeficiency-associated vaccine-derived poliovirus infection; systematic review of over 5 decades of data**

*Mohammadreza Shaghghi, Saeed Soleyman-jahi, Hassan Abolhassani, Reza Yazdani, ... Asghar Aghamohammadi*

1711-1719

**New and safe formulation for scorpion immunotherapy: Comparative study between saponin and FCA adjuvants associated to attenuated venom**

*Abdelmounaim Nouri, Faez Amokrane Nait Mohamed, Fatima Laraba-Djebari*

1720-1727

**Immunization of pregnant cows with Shiga toxin-2 induces high levels of specific colostral antibodies and lactoferrin able to neutralize E. coli O157:H7 pathogenicity**

*Adriana Albanese, Flavia Sacerdoti, E. Abril Seyahian, Maria Marta Amaral, ... Cristina Ibarra*

1728-1735

**Reduced nontypeable Haemophilus influenzae lower airway infection in children with chronic endobronchial suppuration vaccinated with the 10-valent pneumococcal H. influenzae protein D conjugate vaccine**

*Kim M. Hare, Heidi C. Smith-Vaughan, Amanda J. Leach, Susan J. Pizzutto, ... Anne B. Chang*

1736-1742

**Vaccination coverage among foreign-born and U.S.-born adolescents in the United States: Successes and gaps – National Immunization Survey-Teen, 2012–2014**

*Jessica Healy, Alfonso Rodriguez-Lainz, Laurie D. Elam-Evans, Holly A. Hill, ... David Yankey*

1743-1750

**The evolution of immunization waiver education in Michigan: A qualitative study of vaccine educators**

*Mark C. Navin, Andrea T. Kozak, Emily C. Clark*

1751-1756

**Towards the introduction of pneumococcal conjugate vaccines in Bhutan: A cost-utility analysis to determine the optimal policy option**

*Kinley Dorji, Sonam Phuntsho, Pempa, Suthasinee Kumluang, ... Yot Teerawattananon*

1757-1765

**Evaluation of vaccine derived poliovirus type 2 outbreak response options: A randomized controlled trial, Karachi, Pakistan**

*Ali Faisal Saleem, Mohammad Tahir Yousafzai, Ondrej Mach, Asia Khan, ... Anita K.M. Zaidi* 1766-1771

**Acceptability of intranasal live attenuated influenza vaccine, influenza knowledge and vaccine intent in The Gambia**

*Edwin P. Armitage, Janko Camara, Sulayman Bah, Alice S. Forster, ... Thushan I. de Silva* 1772-1780

**Post-licensure safety monitoring of quadrivalent human papillomavirus vaccine in the Vaccine Adverse Event Reporting System (VAERS), 2009–2015**

*Jorge E. Arana, Theresa Harrington, Maria Cano, Paige Lewis, ... Tom T. Shimabukuro* 1781-1788

**Vaccine safety testing using magnetic resonance imaging in suckling pigs**

*Maren Bernau, Bernd Große Liesner, Sebastian Schwanitz, Ann-Sophie Kraus, ... Armin Manfred Scholz* 1789-1795

**Strategies to implement maternal vaccination: A comparison between standing orders for midwife delivery, a hospital based maternal immunisation service and primary care**

*Sushena Krishnaswamy, Euan M Wallace, Jim Buttery, Michelle L Giles* 1796-1800

Vaccines

Volume 36, Issue 14, March 2018

**Why France is making eight new vaccines mandatory**

*Jeremy K. Ward, James Colgrove, Pierre Verger* 1801-1803

**Factors contributing to declination of annual influenza vaccination by healthcare workers caring for cancer patients: An Australian experience**

*T.C. Surtees, B.W. Teh, M.A. Slavin, L.J. Worth* 1804-1807

**It could have been much worse: The Minnesota measles outbreak of 2017**

*Timothy F. Leslie, Paul L. Delamater, Y. Tony Yang* 1808-1810

**Evaluation of the immunogenic capability of the BCG strains BCG $\Delta$ BCG1419c and BCG $\Delta$ BCG1416c in a three-dimensional human lung tissue model**

*Venkata Ramanarao Parasa, Jeronimo Rose, Luis Alberto Castillo-Diaz, Michel de Jesús Aceves-Sánchez, ... Mario Alberto Flores-Valdez* 1811-1815

Vaccine-preventable disease incidence of pneumococcal conjugate vaccine in the Finnish invasive pneumococcal disease vaccine trial

*Arto A. Palmu, Jukka Jokinen, Heta Nieminen, Hanna Rinta-Kokko, ... Terhi M. Kilpi*  
1816-1822

Immunization education for internal medicine residents: A cluster-randomized controlled trial

*Jennifer A. Whitaker, Caroline M. Poland, Thomas J. Beckman, John B. Bundrick, ... Gregory A. Poland*  
1823-1829

Generation, safety and immunogenicity of an *Actinobacillus pleuropneumoniae* quintuple deletion mutant SLW07 ( $\Delta$ apxIC $\Delta$ apxIIC $\Delta$ orf1 $\Delta$ cpxAR $\Delta$ arcA)

*Fangyan Yuan, Jinlin Liu, Wujin You, Weicheng Bei, ... Siguo Liu*  
1830-1836

Safety implication of Salmonella based Brucella vaccine candidate in mice and in vitro human cell culture

*Jonathan Lalsiamthara, Amal Senevirathne, Mi Young So, John Hwa Lee*  
1837-1845

A plant-produced vaccine protects mice against lethal West Nile virus infection without enhancing Zika or dengue virus infectivity

*Huafang Lai, Amber M. Paul, Haiyan Sun, Junyun He, ... Qiang Chen*  
1846-1852

Engineering a stable CHO cell line for the expression of a MERS-coronavirus vaccine antigen

*Mun Peak Nyon, Lanying Du, Chien-Te Kent Tseng, Christopher A. Seid, ... Peter J. Hotez*  
1853-1862

Lack of nervous necrosis virus (NNV) neutralizing antibodies in convalescent sevenband grouper *Hyporthodus septemfasciatus* after NNV infection

*Hyun Jung Gye, Myung-Joo Oh, Toyohiko Nishizawa*  
1863-1870

H5N2 vaccine viruses on Russian and US live attenuated influenza virus backbones demonstrate similar infectivity, immunogenicity and protection in ferrets

*Rita Czakó, Leatrice Vogel, Troy Sutton, Yumiko Matsuoka, ... Kanta Subbarao*  
1871-1879

Attenuation, safety, and efficacy of a QX-like infectious bronchitis virus serotype vaccine

Effectiveness of maternal pertussis vaccination in preventing infection and disease in infants: The NSW Public Health Network case-control study

*Nathan Saul, Kevin Wang, Shopna Bag, Heather Baldwin, ... Stephen Conaty*

1887-1892

Killed but metabolically active *Pseudomonas aeruginosa*-based vaccine induces protective humoral- and cell-mediated immunity against *Pseudomonas aeruginosa* pulmonary infections

*Elodie Meynet, David Laurin, Jean Luc Lenormand, Boubou Camara, ... Audrey Le*

*Gouëllec*

1893-1900

Efficacy of a high-potency multivalent foot-and-mouth disease virus vaccine in cattle against heterologous challenge with a field virus from the emerging A/ASIA/G-VII lineage

*Ryan Waters, Anna B. Ludi, Veronica L. Fowler, Ginette Wilsden, ... Donald P. King*

1901-1907

Immunogenicity and safety of one or two doses of the quadrivalent meningococcal vaccine MenACWY-TT given alone or with the 13-valent pneumococcal conjugate vaccine in toddlers: A phase III, open-label, randomised study

*Clare L. Cutland, Terry Nolan, Scott A. Halperin, Zafer Kurugol, ... Marie Van Der*

*Wielen*

1908-1916