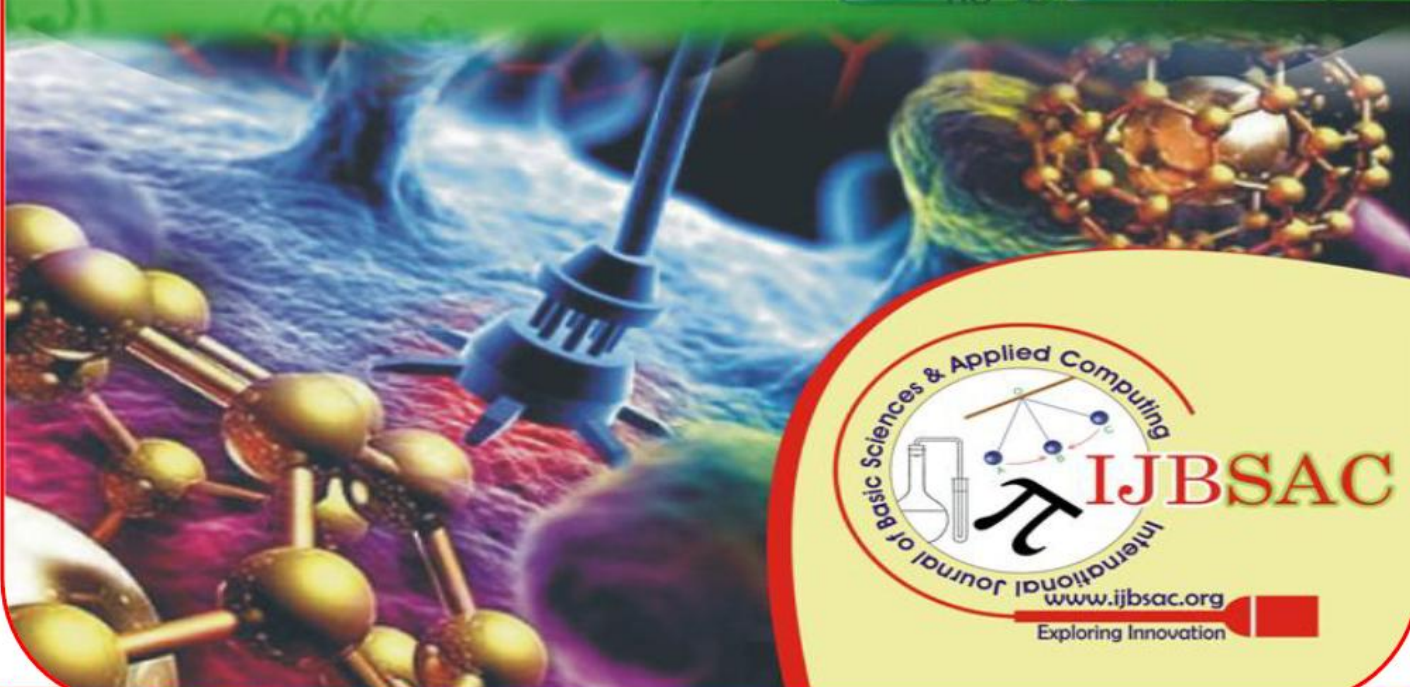
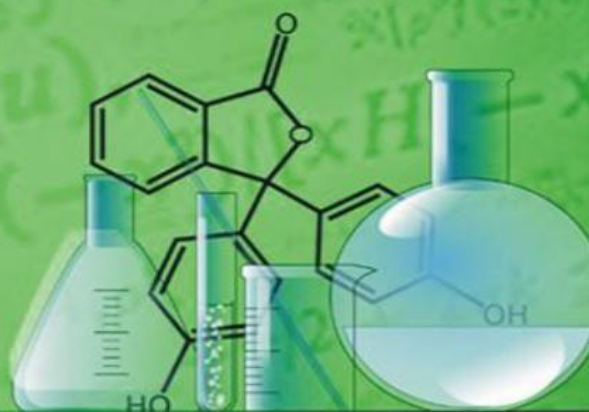
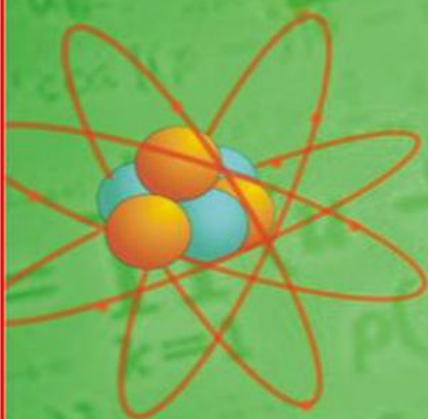


Volume 2 Issue 4, April 2018

**International Journal of Basic Science
and Applied Computing**



Blue Eyes Intelligence Engineering & Sciences Publication Pvt. Ltd.
Exploring Innovation: A Key for Dedicated Services

Address:

22, First Floor, ShivLoka Phase-IV,
Khajuri Kala, BHEL-Piplani, Bhopal (M.P.)-462021, India

Website: www.blueeyesintelligence.org

Email: director@blueeyesintelligence.org, blueeyes@gmail.com

Cell #: +91-9669981618, **WhatsApp #:** +91-9669981618, **Viber #:** +91-9669981618

Skype #: beiesp, **Twitter #:** beiesp

Editor-In-Chief Chair

Dr. Shiv Kumar

Ph.D. (CSE), M.Tech. (IT, Honors), B.Tech. (IT), Senior Member of IEEE

Professor, Department of Computer Science & Engineering, Lakshmi Narain College of Technology Excellence (LNCTE), Bhopal (M.P.), India

Associated Editor-In-Chief Chair

Dr. Dinesh Varshney

Professor, School of Physics, Devi Ahilya University, Indore (M.P.), India

Associated Editor-In-Chief Members

Dr. Hai Shanker Hota

Ph.D. (CSE), MCA, MSc (Mathematics)

Professor & Head, Department of CS, Bilaspur University, Bilaspur (C.G.), India

Dr. Gamal Abd El-Nasser Ahmed Mohamed Said

Ph.D(CSE), MS(CSE), BSc(EE)

Department of Computer and Information Technology , Port Training Institute, Arab Academy for Science ,Technology and Maritime Transport, Egypt

Dr. Mayank Singh

PDF (Purs), Ph.D(CSE), ME(Software Engineering), BE(CSE), SMACM, MIEEE, LMCSI, SMIACSIT

Department of Electrical, Electronic and Computer Engineering, School of Engineering, Howard College, University of KwaZulu-Natal, Durban, South Africa.

Scientific Editors

Prof. (Dr.) Hamid Saremi

Vice Chancellor of Islamic Azad University of Iran, Quchan Branch, Quchan-Iran

Dr. Moinuddin Sarker

Vice President of Research & Development, Head of Science Team, Natural State Research, Inc., 37 Brown House Road (2nd Floor) Stamford, USA.

Dr. Shanmugha Priya. Pon

Principal, Department of Commerce and Management, St. Joseph College of Management and Finance, Makambako, Tanzania, East Africa, Tanzania

Dr. Veronica Mc Gowan

Associate Professor, Department of Computer and Business Information Systems, Delaware Valley College, Doylestown, PA, Allman, China.

Dr. Fadiya Samson Oluwaseun

Assistant Professor, Girne American University, as a Lecturer & International Admission Officer (African Region) Girne, Northern Cyprus, Turkey.

Dr. Robert Brian Smith

International Development Assistance Consultant, Department of AEC Consultants Pty Ltd, AEC Consultants Pty Ltd, Macquarie Centre, North Ryde, New South Wales, Australia

Dr. Durgesh Mishra

Professor & Dean (R&D), Acropolis Institute of Technology, Indore (M.P.), India

Executive Editor Chair

Dr. Deepak Garg

Professor & Head, Department Of Computer Science And Engineering, Bennett University, Times Group, Greater Noida (UP), India

Executive Editor Members

Dr. Vahid Nourani

Professor, Faculty of Civil Engineering, University of Tabriz, Iran.

Dr. Saber Mohamed Abd-Allah

Associate Professor, Department of Biochemistry, Shanghai Institute of Biochemistry and Cell Biology, Shanghai, China.

Dr. Xiaoguang Yue

Associate Professor, Department of Computer and Information, Southwest Forestry University, Kunming (Yunnan), China.

Dr. Labib Francis Gergis Rofaiel

Associate Professor, Department of Digital Communications and Electronics, Misr Academy for Engineering and Technology, Mansoura, Egypt.

Dr. Hugo A.F.A. Santos

ICES, Institute for Computational Engineering and Sciences, The University of Texas, Austin, USA.

Dr. Sunandan Bhunia

Associate Professor & Head, Department of Electronics & Communication Engineering, Haldia Institute of Technology, Haldia (Bengal), India.

Dr. Awatif Mohammed Ali Elsiddieg

Assistant Professor, Department of Mathematics, Faculty of Science and Humatarian Studies, Elnielain University, Khartoum Sudan, Saudi Arabia.

Technical Program Committee Chair**Dr. Mohd. Nazri Ismail**

Associate Professor, Department of System and Networking, University of Kuala (UniKL), Kuala Lumpur, Malaysia.

Technical Program Committee Members**Dr. Haw Su Cheng**

Faculty of Information Technology, Multimedia University (MMU), Jalan Multimedia (Cyberjaya), Malaysia.

Dr. Hasan. A. M Al Dabbas

Chairperson, Vice Dean Faculty of Engineering, Department of Mechanical Engineering, Philadelphia University, Amman, Jordan.

Dr. Gabil Adilov

Professor, Department of Mathematics, Akdeniz University, Konyaalti/Antalya, Turkey.

Dr. Ch.V. Raghavendran

Professor, Department of Computer Science & Engineering, Ideal College of Arts and Sciences Kakinada (Andhra Pradesh), India.

Dr. Thanhtrung Dang

Associate Professor & Vice-Dean, Department of Vehicle and Energy Engineeering, HCMC University of Technology and Education, Hochiminh, Vietnam.

Dr. Wilson Udo Udofia

Associate Professor, Department of Technical Education, State College of Education, Afaha Nsit, Akwa Ibom, Nigeria.

Convener Chair**Mr. Jitendra Kumar Sen**

Blue Eyes Intelligence Engineering & Sciences Publication Pvt. Ltd., Bhopal(M.P.), India

Editorial Chair**Dr. Sameh Ghanem Salem Zaghoul**

Department of Radar, Military Technical College, Cairo Governorate, Egypt.

Editorial Members**Dr. Uma Shanker**

Professor, Department of Mathematics, Muzafferpur Institute of Technology, Muzafferpur(Bihar), India

Dr. Rama Shanker

Professor & Head, Department of Statistics, Eritrea Institute of Technology, Asmara, Eritrea

Dr. Vinita Kumar

Department of Physics, Dr. D. Ram D A V Public School, Danapur, Patna(Bihar), India

Dr. Brijesh Singh

Senior Yoga Expert and Head, Department of Yoga, Samutakarsha Academy of Yoga, Music & Holistic Living, Prahladnagar, Ahmedabad (Gujarat), India.

Dr. J. Gladson Maria Britto

Professor, Department of Computer Science & Engineering, Malla Reddy College of Engineering, Secunderabad (Telangana), India.

Dr. Sunil Tekale

Professor, Dean Academics, Department of Computer Science & Engineering, Malla Reddy College of Engineering, Secunderabad (Telangana), India.

Authors: Divya Sanganabhatla, R. Shyam Sunder, Harshit Malpani

Paper Title: Introduction To Solid Lipid Nano Particles- An Overview

Abstract: Solid lipid nanoparticles are of major importance to the developing field of nano technology with applications in drug delivery, research and clinical medicine and other sciences. SLN dispersions have been proposed as a new type of colloidal drug carrier system suitable for intravenous administration. Solid lipid nanoparticles are submicron colloidal carriers composed of a single lipid core matrix that is solid at body temperature, and is coated with a surfactant acting as stabilizer. The conventional approaches such as use of permeation enhancers, surface modification, prodrug synthesis, complex formation and colloidal lipid carrier based strategies have been developed for the delivery of drugs to intestinal lymphatics. Aspects of solid lipid nanoparticles route of administration and their bio distribution are also incorporated. If appropriately investigated, solid lipid nanoparticles may open new vistas in therapy of complex diseases. It also discusses the potential of SLNs in brain targeting

Keywords: Nano Particles, Solid Lipid Nanoparticles (SLNs), TEM, PCS, Bio Distribution.

1. References:

1. Liversidge GG and Cundy KC: Particle size reduction for improvement of oral bioavailability of hydrophobic drugs. Absolute oral bioavailability of nanocrystallized danazol in beagle dogs. *Int J Pharm* 1995; 125:91-97.
2. Olbrich C, Gebner A, Kayser O, Muller RH. Lipid–drug conjugate (LDC) nanoparticles as novel carrier system for the hydrophilic antitrypanosomal drug diminazenediacetate. *J Drug Target*. 2002;10:387–96.
3. Wolfgang Mehnert, Karsten Mader,; Solid lipid nanoparticles: Production, characterization and applications; *Advanced Drug Delivery Reviews* 47, (2001), 165– 196
4. Mullen zur A. Feste Lipid-Nanopartikel mit prolongierter Wirkstoffliberation: Herstellung, Langzeitstabilitat, Charakterisierung, Freisetzungverhalten und mechanismen. Ph.D. Thesis, Free University of Berlin. 1996
5. Eldem T, Speiser P, Hincal A. Optimization of spray-dried and congealed lipid microparticles and characterization of their surface morphology by scanning electron microscopy. *Pharm Res* 1991;8:47-54.
6. Speiser P. Lipidnanopellets als Tragersystem fur Arzneimittel zur peroralem Anwendung. European Patent No. EP 0167825; 1990.
7. Sjoström B, Bergenstahl B. Preparation of submicron drug particles in lecithin-stabilized o/w emulsions. I. Model studies of the precipitation of cholesteryl acetate. *Int J Pharm* 1992;88:53-62.
8. Siekmann B, Westesen K. Investigations on solid lipid nanoparticles prepared by precipitation in o/w emulsions. *Eur J Pharm Biopharm* 1996;43:104-9.
9. Freitas C, Mullera RH. Spray-drying of Solid lipid nanoparticles (SLN TM). *Eur J Pharm Biopharm* 1998;46:145-51.
10. Killeen M.J. Spray drying and spray congealing of pharmaceuticals. In *Encyclopedia of Pharmaceutical Technology*. Edited by Swarbrick J. Boylan JC 2000