



## Anemia and Its Application in Current Research World

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### Abstract

Anemia is a major [blood disorder](#), in which red blood cell count is decreased to below normal level and it affects the transport of oxygen to body tissue. In this condition the body gets low oxygen supply and leads to oxidative stress. [Anemia](#) can be caused by blood loss, destruction of red blood cells or less synthesis of red blood cells. The main symptoms of anemia include pale face, exhaustion, and difficulty in breathing, dizziness or a fast heartbeat. If we haven't diagnosis the anemia in time then it may leads to death of that individual. The treatments used for the diagnoses of anemia are, one should maintain the normal iron level by taking the iron supplements to overcome the anemic condition. In [blood loss](#) condition, transfusion of healthy blood to the patient will helps to overcome the anemia. To increase the productions of RBC, one can use the medications like vitamin B and C and [Erythropoiesis-Stimulating Agents](#) are used.

*Keywords: Antioxidant effect; Anemia; Blood loss; Red blood cells*

### Introduction

Anemia is a blood disorder in which we can see less number of red blood cells or [haemoglobin](#). The anemic patients mainly face insufficient oxygen supply to body tissues due to lack of red blood cells or haemoglobin. This condition can be seen in the individual who has lack of iron molecules, or due to [thalassemia](#) (lack of vitamin B12) or loss of blood due to any major injuries. Major symptoms which can be seen in the individual who is suffering with anemia are dizziness, fatigue, difficulty in breathing and increased heart beat due to less number of oxygen in blood tissue to overcome that heart will pump more blood to body parts. To make an aware of this anemic conditions people has to follow the instructions given by physicians, consultants and reputed [journals](#) magazines to know more information about anemia and its diagnosis. There are vast numbers of [societies](#) working on anemia to get better treatment procedures for curing.

The [British Society for Hematology](#), Bringing hematology professionals together since 1960 to transform the care for patients. There are vast number of societies are helping people to aware of anemia conditions and also to get better treatment remedies to treat anemia condition. [Thalassemia International Federation](#) is a non-profit organization established in 1987 and its main aim is "prevention and quality treatment of thalassemia and their vision is to establish equal access to excellent health care for patients suffering with thalassemia and other haemoglobin disorders across the world".

### Anemia and its Applications

There is more number of renowned journals which are helping individuals to understand the effects and diagnosis of life threatening diseases like blood cancers in its early stage. [Journal of Blood Research & Hematologic Diseases](#) is an Open Access peer-reviewed scholarly journal that aims to publish the most complete and reliable source of information on basic and translational studies of Blood research and associated diseases. [Journal of Biology and Medicine](#) is an open access journal which provides most or readers regarding pathological and medical studies on various types of diseases and organs system in our body. [Journal of Hematology & Thromboembolic Diseases](#) is a peer reviewed medical journal that includes a wide range of fields of Hematology and its diseases like thrombosis, embolism, clotting of blood etc. The journal publishes the article which are examined and reviewed by editorial members and also external reviewers to check the novelty of articles. Here I have mentioned one article which was published in this journal and the article present a 56 yr. old female patient with medical antecedents of sarcoidosis presenting a cold antibody autoimmune hemolytic anemia. A good response to corticosteroid treatment was achieved during hospitalization.

There are [conferences](#) which are going to be held on Hematology to promote the standard medical research on various diseases like anemia and leukemia. In which [Clinical and Experimental Hematology](#) is going to be held on October 16-17, 2017 at Rome, Italy. Which has been designed with many interesting and informative scientific sessions; it includes all possible Clinical and Experimental aspects of Hematology research. [World Hematologists Congress](#) is going too held on May 08-09, 2017 Barcelona, Spain. The main theme of the conference is to bring the all the Hematology experts on one plate form to present or execute their research experience or research works on blood research & hematologic diseases. [International Conference on Blood Cancer & Treatment](#) is going to be held on June 26-27, 2017 London, UK. Which is mainly focuses on the better treatment criteria's of the blood cancers like leukemia, lymphoma and myeloma.

At present anemia is a trending disorder in many individuals the condition may occur due to loss of [blood](#) or less number of blood cell production. As it is growing in present world there are vast number of experts in this field to evaluate or examine the anaemic patients to invent better quality medication to prevent the diseases with low cost. There are few experts like [Richard T. Silver](#) who is helping people by sharing his research experience in the form of research articles and editorial to make the people aware of endangerous diseases like leukemia, Polycythemia Vera, Essential thrombocythemia. His recently published editorial in Journal of Blood Research & Hematologic Diseases will explain about the recent importance of recombinant interferon alpha (rIFN $\alpha$ ) for the treatment of polycythemia Vera (PV) or [essential thrombocythemia](#) (ET), favoring the use of phlebotomy and/or hydroxyl urea. Here we express our reasons for the use of rIFN $\alpha$  early in the course of PV or ET in the absence of a phase 3 trial.

Now-a-days the medications used to cure the anemic patients are too high and the people who are from developing countries are unable to buy the proper medication to cure the diseases. [Deborah White](#) is Principal Research Fellow at SAHMRI and she works on Cancer Theme at South Australian Health and Medical Research Institute, Australia. Deborah has kept all her research experiences in an editorial to evaluate and aware of the Role of Wnt/ $\beta$  -Catenin Signaling in Normal and Malignant [Hematopoiesis](#). The editorial will help us to know important facts about blood cancers and its therapies to cure. Currently she is an active Editorial Board Member of Journal of Blood Research & Hematologic Diseases. White research interests include the chronic myeloid leukemia (CML) and acute lymphoblastic leukemia (ALL).

In current days childes are affected to major diseases like [Leukemia](#), cancers, etc. When a child is suffering from a serious, often fatal, acquired disease such as leukemia or cancer, or a genetic disease with poor prognosis, and thus is hospitalized for long periods of time, the uncertainty and unpredictability keep parents in a state of constant anxiety that is hard to deal with and difficult to control while maintaining a well-balanced behavior. [Luisa M. Massimo](#) is an expert in the field of Pediatrics,

Health management, Oncology, Pediatric Hematology/Oncology, Bioethics, Psychology and quality of life. She has explored her ideas on leukemia and cancers to aware the most of people who are suffering with them. She even performed many research works and published novel and innovative works on various types of blood cancers to overcome the possibility of death or major side effects of those diseases. At present she has retired as a [scientist](#) and helping people through her experience in particular filed to get aware of many researchers also people.

## Conclusion

[Anemia](#) is a blood disorder and it is most prominent and prevalent in Europe. Many innovative technologies have been developed to reduce the harmful effects due to anemia. All this information can be accessed in open access health care journal [publications](#) which show the novel and innovative techniques to cure the anemia and also it included the recent discoveries of researches which have been taking place in current research field. There are so many experts who were sharing their views and suggestions through the open access literature which can be accessed by all in order attain knowledge on anemia. However, anemia is major blood related disorder in [European countries](#), they are developing many innovative techniques to overcome the problem of anemia and later the research work is going to be serious to coin the novel medicines and techniques to diagnose the anemia patient's with prior implementations.

## REFERENCE

1. Chalupova L, Halupova L, Zakovska A, Krejci G, Svestak M, et al. (2016) CTRP1: A Molecular Link between Obesity and Hypertension . J Mol Biomark Diagn 7: 289.
2. Ali SA (2016) Use of Smokeless Tobacco in Medical Students and Hypertension. Occup Med Health Aff 4:240.
3. Stoicescu M (2016) The Risk of Sudden Decrease of Severe Arterial Hypertension. J Clin Exp Cardiol 7:460.
4. Chauhan R, Parihar AKS, Chauhan S (2016) Hypertension and the Aged. J Gerontol Geriatr Res S5:002.
5. Pagano D, Barbieri L, Gruttadauria S (2016) Portal Hypertension Model in Pigs. J Clin Exp Transplant 1:e101.
6. Aberha M, Gebeyehu A, Ayano G (2016) Prevalence and Factors Associated with Anxiety among Patients with Hypertension on Follow Up at Menelik- II Referral Hospital, Addis Ababa Ethiopia. J Psychiatry 19:378.
7. Trailokya A (2016) Will Azilsartan - An Eight ARB Bring Paradigm Shift in Hypertension Management Practices in India? Cardiovasc Pharm Open Access 5:189.
8. Li M, Zhang L, Shi J (2016) To Live Long, Eat Less Salt: Salt Intake Reduction Promotion and Hypertension Control in China. Health Care: Current Reviews 4:169.
9. Soltani HM, Namayandeh SM, Latifeh J, Moghadam B, Maleknaz, et al. (2016) The Effect of Fasting During Ramadan on Blood Pressure in Patients with Controlled and Mild Hypertension. J Hypertens 5:227.
10. Sarfaraz S, Farooq N, Ashraf N, Aslam A, Sarwar G (2016) Non Pharmacological Use of Daucus carota Juice (Carrot Juice) as Dietary Intervention in Reducing Hypertension. Enz Eng 5:147.
11. Berezin AE (2016) Is Elevated Circulating Galectin-3 Level A Predictor of Pulmonary Artery Hypertension Development and Progression? Clin Med Biochemistry Open Access 2:114.
12. Manolis A, Doumas M (2016) Erectile Function in Cardiovascular Disease and Hypertension: the Role of Nebivolol . J Hypertens 5:226.
13. Lv Y, Lau WY, Deng J, Li JY, Dong Y (2016) Non-Hypersplenism Causes of Peripheral Cytopenias in Patients with Cirrhotic Portal Hypertension: A Review. J Hypertens 5:223.

14. Li X, Qiao Y, Li Y, Cai H, He J (2016) Angiotensinogen M235T,  $\beta$ 2 Adrenergic Receptor Arg16Gly and Aldosterone Synthase C-344T Gene Polymorphisms and Essential Hypertension among Han Population Living at High Altitude in China. *J Hypertens* 5:222.
15. Abdel-hamid ER, Mohammed EA, Aleraky AZ, Badr FM (2016) Association of Angiotensin Converting Enzyme Gene Polymorphism and Possible High Risk Factors with Essential Arterial Hypertension in Egyptian Patients. *Mol Biol* 5:165.
16. EL-Adawy NM, Helmy AK, Ismail TT, Tawfik ARS, Keryakos HKH, et al. (2016) Fibroblast Growth Factor-23: A Possible Cause of Pulmonary Hypertension and Left Ventricle Hypertrophy in Hemodialysis Patients. *J Clin Exp Cardiol* 7:449.
17. Feyh A, Bracero L, Lakhani HV, Santhanam P, Shapiro JI, et al. (2016) Role of Dietary Components in Modulating Hypertension. *J Clin Exp Cardiol* 7:433.
18. Guney F, Bozkurt B, Paksoy Y (2016) Intracranial Hypertension in Behcet Disease: A Case Report. *J Clin Case Rep* 6:748.
19. Bogari DF, Bakalka GT, Hazzazi LW, Jan AM, Elias WY, et al. (2016) The Prevalence of Hypertension in Endodontic Clinics: A Pilot Study. *Dentistry* 6:370.
20. Silva RP, Sousa NRP, Costa PSC, Rocha MG (2016) Who is the Patient with Suspected White Coat Hypertension? . *J Clin Exp Cardiol* 7:428.
21. Aissa S, Mezghani S, Benzarti W, Ben Jazia R, Ben Salem H, et al., (2016) Prognosis Evaluation of Pulmonary Endarterectomy for Chronic Thromboembolic Pulmonary Hypertension. *J Pulm Respir Med* 6:328.
22. Li H (2016) Hypertension Management in Primary Care in China: Still a Long Way to Proceed. *J Gen Practice* 4:238.
23. Tsabang N, Fongnzossie E, Donfack D, Yedjou CG, Tchounwou PB, et al. (2016) Comparative Study of Epidemiological and Anthropological Aspects of Diabetes and Hypertension in Cameroon. *Forest Res* 5:165.
24. Dash SK, Kulkarni V, Sahoo RK, Macherla G, Ravikiran M (2016) Idiopathic Pulmonary Hypertension Induced Thrombocytopenia - A Case Report. *J Pulm Respir Med* 6:322.
25. Huckabay L, Reynolds GL, Fisher DG, Odell A, Dyo M (2016) Hypertension in a Low-income and Homeless Community Sample. *J Community Med Health* 6:399.
26. Gonzalez-Aguirre AJ, Lin O, Cho C, Lesokhin AM, Maybody M (2016) Transjugular Liver Biopsy in a Multiple Myeloma Patient with Hepatomegaly, Portal Hypertension and “Miliary” Liver Lesions: A Case Report. *J Gastrointest Dig Syst* 6:390.
27. Kamal I, Hamdy R, Mohamed N (2015) Kidneys: The Victim Of Hypertension: Review. *J Nephrol Ther* 6:231.
28. Mussa BM, Abdulllah Y, Abusnana S (2016) Prevalence of Hypertension and Obesity among Emirati Patients with Type 2 Diabetes. *J Diabetes Metab* 7:638.
29. Viggiano A, Passavanti MB, Zagaria G, Pace MC, Giordano M, et al. (2015) Anti-Hypertensive Treatments and Hypertension- Associated Hypoalgesia Evaluated by Auto-Algometry. *J Anesth Clin Res* 6:589.
30. Bos AJG, Jorge LB, Navarro JHN, Gerlack LF, Rocha JP, et al. (2015) Comparing the Prevalence and Drug Treatment Rates of Diabetes, Hypertension and Dyslipidemia between Japan and Brazil, using 2013 National Health Surveys. *J Clin Diabetes Pract* 1:103.

31. Yunfu Lv, Han XY, Gong X, Gu W, He C, et al. (2015) Analysis of Peripheral Blood Cells Due to Adults Posthepatic Cirrhotic Portal Hypertension and Their Postoperative Prognosis. *J Hypertens (Los Angel)* 4:210.
32. Al-Hamdan NA (2015) Isolated Systolic Hypertension among Adults in Saudi Arabia: Prevalence, Risk Factors, Predictors and Treatment - Results of a National Survey. *Epidemiology (sunnyvale)* 5:206.
33. Lerman MJ, Hinton S, Aronoff R (2015) Post Kidney Transplant Refractory Hypertension and Bilateral Native Nephrectomy. *J Kidney* 1:107.
34. Safdar Z, Thakur A, Singh S, Ji Y, Guffey D, et al. (2015) Circulating Aldosterone Levels and Disease Severity in Pulmonary Arterial Hypertension. *J Pulm Respir Med* 5:295.
35. Ashoor I (2015) Pediatric Hypertension: A Primer for the Busy Primary Care Provider. *J Nephrol Ther* 5:218.
36. Mutlu E, Ilhan N, Ilhan N, Ilhan S, Susam S, et al. (2015) Comparative Effectiveness of Novokin, Perindopril and Losartan on Blood Pressure, Adma, NADPH Oxidase and Rho Kinase at Renal Tissue in L-Name and Salt Induced Hypertension. *Clin Exp Pharmacol* 5:197.
37. Herbert S, Tulloh RMR (2015) Treatment of Pulmonary Hypertension in Down's Syndrome. *J Genet Syndr Gene Ther* 6:273.
38. Roeber L, Borges ASR (2015) Pulmonary Hypertension and Exercise Training: Evidence Based Studies. *Lung Dis Treat* 1:e103.
39. Al-Saloos H, Saeed S (2015) Rare Case of Bilateral Superior Vena Cava, Persistent Left Superior Vena Cava Draining to Coronary Sinus, Absent Bridging Vein, Interrupted Inferior Vena Cava with Azygos Vein Continuation to Right Superior Vena Cava, Situs Inversus and Pulmonary Hypertension in a Neonate: A Case Report. *Pediat Therapeut* 5:i110.
40. Strazyńska A, Hoffmann K, Bryl W, Zaporowska-Stachowiak I, Kostrzevska M, et al. (2015) The Relationship between Serum Apelin Concentration and Selected Anthropometric Parameters, Serum Lipids and Carotid Intima-Media Thickness in Young Subjects with Primary Arterial Hypertension. *J Metabolic Syndr* 4:185.
41. Plácido R, Martins S, Marques JS, Kovell L, Gonçalves S, et al., (2015) Predictors of Functional Capacity in Patients with Pulmonary Hypertension. *J Pulm Respir Med* 5: 290.
42. Rajekar H (2015) Complication of Cirrhosis Portal Hypertension: A Review. *J Liver* 4:188.
43. Roeber L (2015) High-Sensitivity C-Reactive Protein, Hypertension and Stroke: Cause and Effect or Simple Association?. *InternMed* 5:e102.
44. Sun Y, Wu J, Li X (2015) Pulmonary Arterial Hypertension from Hepatic HHT. *InternMed* 5:109.
45. Aronow WS (2015) 2015 American Heart Association/American College of Cardiology/American Society of Hypertension Guidelines on Treatment of Hypertension in Patients with Coronary Artery Disease. *J Hypertens* 4:e113.
46. Jiangyan C, Zhengliqiang L, Lixiaodong M (2015) Association among Systolic Blood Pressure Variation, Inflammation and Arterial Rigidity in Essential Hypertension. *J Hypertens (Los Angel)* 4:207.
47. Padda RS, Shi Y, Lo CS, Zhang SL, Chan JSD (2015) Angiotensin-(1-7): A Novel Peptide to Treat Hypertension and Nephropathy in Diabetes?. *J Diabetes Metab* 6:615.
48. Rovedder PME, Andrade FP, Dalcin PDTR (2015) Pulmonary Hypertension and Pulmonary Disorders in Cystic Fibrosis. *Cardiovasc Pharm Open Access* 4:158.

49. Vadapalli S, Chaitra KL, Satyanarayana ML, Surekha Rani H, Sastry BKS, et al. (2015) Variants of PGIS and PPAR $\gamma$  in Idiopathic Pulmonary Arterial Hypertension. *J Clin Med Genomics* 3:130.
50. Srinivasamurthy BC (2015) Burden and Determinants of Hypertension in Rural Pondicherry, India. *J Clin Med Genomics* 3:127.
51. Nikitin VA, Gosteva EV, Mishina YV, Vasilieva LV (2015) Concor AM Therapy in Patients with Chronic Obstructive Pulmonary Disease and Concomitant Arterial Hypertension. *Biol Med (Aligarh)* 7:246.
52. Kobata K, Nabetani M, Yutaka N, Hiroyuki, Sanno (2015) Experiences of Therapeutic Hypothermia Therapy on Six Cases with Persistent: Pulmonary Hypertension and Moderate to Severe Hypoxic Ischemic Encephalopathy using Inhaled Nitric Oxide Therapy. *J Neonatal Biol* 4:198.
53. Basturk T, Pamukcu Ö, Koc Y, Sakaci T, Sevinc M, et al. (2015) A Case Report of Thrombotic Microangiopathic Malignant Hypertension. *J Hypertens* 4:205.
54. Rodríguez ÁD, De Abajo Larriba AB, Rodríguez EM, Cobo BP, Atoui OM, et al. (2015) Does Self-measurement of Blood Pressure (SMBP) Contribute to Improve the Degree of Hypertension Control? *Fam Med Med Sci Res* 4:183.
55. Jachec W, Wojciechowska C, Tomasik A, Kawecki D, Nowalany-Kozielska E et al. (2015) Response to Inhaled Nitric Oxide, But neither Sodium Nitroprusside nor Sildenafil, Predicts Survival in Patients with Dilated Cardiomyopathy Complicated with Pulmonary Hypertension. *J Clin Exp Cardiol* 6:376.
56. You F, Weng L, Zhang Y, Cheng G, Qin Q, et al. (2015) Evaluation of Cardiac Reserve Function in Gestational Hypertension. *J Neonatal Biol* 4: 181.
57. Ozdag Y, Didem Suna Y, Yavuz B (2015) An Assessment of the Awareness of Lifestyle Changes in Patients with Hypertension. *Fam Med Med Sci Res* 4: 178.
58. Dhikale PT, Solanki MJ, Shrivastava SR (2015) A Study of Epidemiology of Hypertension in an Urban Slum Community of Mumbai. *Biol Med* S3:003.
59. Moorhouse P (2015) Treatment of Hypertension in Frail Older Adults in Nursing Homes: Evaluation of an Educational Intervention for Physicians. *J Gerontol Geriat Res* S3:005.
60. Menzilcioglu MS (2015) Complication of Cardiac Hidatic Cyst. *OMICS J Radiol* 4:190.
61. Shrivastava SR, Ghorpade AG, Shrivastava PS (2015) Burden and Determinants of Hypertension in Rural Pondicherry, India. *Biol Med* 7: 238.
62. Ulman-Wlodarz I, Irzyniec T, Galbierz- Kwiatkowska E, Maciejewska-Paszek I (2015) Determination of Ghrelin's Role in the Pathogenesis of Pregnancy Induced Hypertension. *J Hypertens* 4:201.
63. Mira-Avendano I, Hatipoglu U, Sant C, Laskowski D, Yadav R, et al. (2015) Oral Sildenafil has No Acute Effect on Diffusion Capacity Measurements in Patients with Diffuse Parenchymal Lung Disease and Pulmonary Hypertension. *Fam Med Med Sci Res* 4:173.
64. Ray S, Iyer A, Mallucci C, Solomon T, Kneen R (2015) Decompressive Craniectomy and Partial Temporal Lobectomy for Herpes Simplex Virus Encephalitis with Refractory Intracranial Hypertension in an Adolescent. *J Neuroinfect Dis* 5:174.
65. Srimatkandada P, Coviello AD (2015) Severe Autoimmune Hyperthyroidism in Two Patients with Pulmonary Arterial Hypertension after Treatment with Epoprostenol. *Thyroid Disorders Ther* 4:176.
66. Marston N, Wong D, Blanchard DG (2015) Update in Echocardiography:Chronic Thromboembolic Pulmonary Hypertension. *J Pulm Respir Med* 5:252.

67. Akinseye OA, Akinseye LI (2015) Home Blood Pressure Monitoring and Hypertension Control. *Primary Health Care* 5:182.
68. Bhutani K, Vij C, Bedi GK, Kaur M, Singh U, et al. (2015) Predictive and Prognostic Value of Thyroid Profile and Lipid Profile in Pregnancy Induced Hypertension. *J Preg Child Health* 2:144.
69. Helvacı RM, Özcan A (2015) White Coat Hypertension is a Pioneer Sign of Metabolic Syndrome. *J Metabolic Syndr* 4:172.
70. Aleyeidi N, Aseri K, Kawthar A (2015) The Efficacy of Wet Cupping on Blood Pressure among Hypertension Patients in Jeddah, Saudi Arabia: A Randomized Controlled Trial Pilot Study. *Altern Integr Med* 4:183.
71. Kincaid BB, Muzyk AJ, Kanter RJ, Preud'homme XA (2015) Manifestations of Anxiety? Explaining Tachycardia and Hypertension in a Patient with POTS . *Fam Med Med Sci Res* 4:153.
72. Yamamoto T, Tamura Y, Ono T, Takei M, Sano M, et al. (2015) Relationship between Digit Ratio and Idiopathic Pulmonary Arterial Hypertension in Japanese Women. *J Vasc Med Surg* 3:175.
73. Aziz A, Lee AM, Ufere NN, Damiano RJ, Townsend RR, et al. (2015) Proteomic Profiling of Early Chronic Pulmonary Hypertension: Evidence for Both Adaptive and Maladaptive Pathology. *J Pulm Respir Med* 5:241.
74. Reyes LR, Nauffal D, Ortega GA, Menéndez MA, Fandos MJ, et al. (2015) Clinical Characteristics and Survival of Patients with Pulmonary Hypertension: A 40-Month Mean Follow-Up . *J Pulm Respir Med* 5:235.
75. Maatoug J, Zammit N, Bhiri S, Hmad S, Imed Harrabi, et al. (2015) Three-Year Intervention Program to Prevent Hypertension in Workplaces in Tunisia: A Pre-Post Quasi-Experimental Design with Control Group. *J Clin Trials* 5:202.
76. Ukimura A, Matsuda H, Yamauchi Y, Yamamoto K, Hirai K, et al (2015) Azilsartan is More Effective as Compared to Olmesartan in Hemodialysis Patients with Uncontrolled Hypertension. *J Nephrol Ther* 5:193.
77. Asarkua H, Fukami T, Inagaki T, Tateyama N (2015) Serious Influence of Yersinia Enterocolitis on Pregnancy in a Woman Complicated With Chronic Hypertension and Gestational Diabetes Mellitus: A Case Report. *J Preg Child Health* 2:135.
78. Gunes ARIK and Burcu Balam YAVUZ (2014) Hypertension in Older Adults-Geriatrician Point of View. *J Gerontol Geriat Res* 3:182.
79. Zhu Q, Amjad A, Fu Z, Ma Y, Huang D, et al. (2015) Single Nucleotide Polymorphism of the CYP2J2 Gene is Associated with Essential Hypertension in Uygur Population in China. *Biochem Anal Biochem* 4:159.
80. Mesiano P, Massara C, Rollino C, Borca M, Roccatello D (2015) Vascular Injury by Arterial Hypertension in Anti-Phospholipid Antibody Syndrome . *J Vasc Med Surg* 3:170.
81. Aliyu SU, Oyeyemi AY, Udoh DG, Oyeyemi AL (2014) Prevalence of Overweight/obesity and Undiagnosed Hypertension among Military Personnel in Maiduguri, Nigeria. *J Nov Physiother* 4:237.
82. Elnaggar NK (2014) Diabetes and Hypertension. *J Hypertens* 3:192.
83. Vaclavik J, Sliva J (2014) ACE Inhibitors or Sartans in the Treatment of Hypertension: A Needless Discussion?. *J Hypertens* 3:191.
84. Aronow WS (2014) What Should the Systolic Blood Pressure Goal be in Adults with Hypertension?. *J Hypertens* 3:189.
85. Wang Q, So A, Nussberger J, Ives A, Bagnoud N, et al (2014) Renin-Dependent Hypertension in Mice Requires the NLRP3-Inflammasome. *J Hypertens* 3:187.

86. Adeoye AM, Balogun WO, Adebisi A, Tayo BO (2014) Prevalence of Hypertension and Association with Increased Body Mass in a Semi-Urban Settlement in Nigeria. *J Hypertens* 3:186.
87. Dallatu MK, Nwokocha E, AGU N, Myung C, Newaz MA, et al. (2014) The Role of Hypoxia-Inducible Factor/Prolyl Hydroxylation Pathway in Deoxycorticosterone Acetate/Salt Hypertension in the Rat. *J Hypertens* 3:184.
88. Lv Y, Lau WY, Han X, Gong X, Ma Q, et al. (2014) Grading of Peripheral Cytopenias due to Splenomegaly and Hepatitis B Cirrhotic Portal Hypertension. *J Hypertens* 3:182.
89. Zapata-Sudo G, Sudo SZ, Alencar AKN, Sudo RT (2014) Targeting of the Adenosine Receptors as A Novel Strategy for the Treatment of Arterial Hypertension . *J Neurol Neurophysiol* 5:243.
90. Delacroix S, Chokka RC, Worthley SG (2014) Hypertension: Pathophysiology and Treatment. *J Neurol Neurophysiol* 5:250.
91. Babisch W, Wölke G, Heinrich J, Straff W (2014) Road Traffic, Location of Rooms and Hypertension. *J Civil Environ Eng* 4:162.
92. Dan X, Feng L, Wang W, Yang L (2014) Abdominal Tuberculosis Leading to Prehepatic Portal Hypertension: A Case Report. *J Cytol Histol* 5:278.
93. Batsh MMEI, Batch MMEI (2014) Telmisartan is More Effective than Taurine in Protecting High Fat Diet Induced Obesity in Rats from Hypertension, Some Metabolic, Oxidative Stress and Vascular Complications. *Cardiol Pharmacol* 3:119.
94. Aliyu SU, Oyeyemi AY, Udoh DG, Oyeyemi AL (2014) Prevalence of Overweight/Obesity and Undiagnosed Hypertension among Military Personnel in Maiduguri, Nigeria. *J Nov Physiother* 4:223.
95. Wang M, Nanfang Li, Zhang Y, Zhang D, Abulikemu S, et al. (2014) Case Detection Testing for Primary Aldosteronism in Male Patients with Hypertension and Snoring. *J Hypertens* 3:180.
96. Rebollar RE, Palacios MVG, Guerrero JM, Morera LMT (2016) Atropine- Induced Bigeminy by Treating Bradycardia-Dependent Ectopy. *Cardiovasc Pharm Open Access* 5:193.
97. Bidaki R, Mirhosseni H, Avare R (2011) Breakneck Bradycardia Pursuant to Spinal Anesthesia: A Report of Two Cases. *J Anesthe Clinic Res* 4:293.
98. Maeda K (2012) Actocardiographic Analysis of Fetal Hypoxia Detected by the Bradycardia, Loss of Fetal Heart Rate Acceleration, and Long Term Variability. *J Health Med Inform* 4:118.
99. Al Aseri Z (2012) Marked Symptomatic Bradycardia Associated with Profound Hyperkalemia. *Emerg Med (Los Angel)* 2:103.
100. Bidaki R, Mirhosseni H, Avare R (2011) Breakneck Bradycardia Pursuant to Spinal Anesthesia: A Report of Two Cases. *J Anesthe Clinic Res* S6:001.
101. Diop-Sène MS, Ousmane C, Ndiaye M, Diouf EM, Makhtar Ba MH, et al. (2016) Hemorrhagic Stroke: Clinical, Etiologic and Evolutive Aspects in Senegalese Children. *J Neurol Disord* 4: 300.
102. Heli H. Electrochemical studies of vitamin k3 and its interaction with human serum albumin using a carbon nanoparticles-modified electrode. *J Nanomater Mol Nanotechnol.* 2013;2:7.
103. Bajaj L and Sekhon BS. Nanocarriers based oral insulin delivery. *J Nanomater Mol Nanotechnol.* 2014;3:1.
104. Hwang TL, et al. Development and evaluation of perfluorocarbon nanobubbles for apomorphine delivery. *J Pharm Sci.* 2009;98:3735-47.



105. Mena F, et al. Dietary intake of (-)-epigallocatechin-3-gallate against aging and cancers: nanoencapsulation of multi-rings still requires new rounds! *J Nanomater Mol Nanotechnol.* 2013;2:7.
106. Lokesh BVS and Kumar PV. Enhanced cytotoxic effect of chemically conjugated polymeric sirolimus against ht-29 colon cancer and a-549 lung cancer cell lines. *J Pharm Drug Deliv Res.* 2015;4:2.
107. Ajore R, et al. Effect of humidity on structural distortion and conductance of DNA nanowire. *J Nanomater Mol Nanotechnol.* 2013;2:7.
108. Habibzade S, et al. Effect of nano-zno on decay resistance and artificial weathering of wood polymer composite. *J Nanomater Mol Nanotechnol.* 2014;3:3.
109. Xavier S, et al. Effect of neodymium substitution on structural and magnetic properties of cobalt ferrite nanoparticles. *J Nanomater Mol Nanotechnol.* 2013;2:7.
110. Forny L, et al. Contact angle assessment of hydrophobic silica nanoparticles related to the mechanisms of dry water formation. *Langmuir.* 2010;26: 2333-8.
111. He S, et al. Towards methanol electro-oxidation: comparative study on imidazolium and guanidinium ionic liquids supported pt nanocrystals on carbon nanotubes. *J Nanomater Mol Nanotechnol.* 2013;2:7
112. Hu FQ, et al. Preparation and characteristics of monostearin nanostructured lipid carriers. *Int J Pharm.* 2006; 314: 83-9.
113. AL-Thabaiti SA, et al. Synthesis of poly(vinyl alcohol)-silver nano-composites and effect of ctab on their morphology. *J Nanomater Mol Nanotechnol.* 2013;2:7.
114. Liye X, et al. Fabrication of Cu hollow microspheres by liquid reduction method. *J Nanomater Mol Nanotechnol.* 2014; 3:3.
115. Loomba L and Sekhon BS. Calcium phosphate nanoparticles and their biomedical potential. *J Nanomater Mol Nanotechnol.* 2015;4:1.
116. Wan G, et al. Hierarchical ZnO nanostructures derived from zn-al layered double hydroxides and their photocatalytic activity. *J Nanomater Mol Nanotechnol.* 2014;3:4.
117. Castelli F, et al. Characterization of indomethacin-loaded lipid nanoparticles by differential scanning calorimetry. *Int J Pharm.* 2005;304:231-8.
118. Kumar D, et al. Some mechanical properties of carbon nanotubes heterojunctions. *J Nanomater Mol Nanotechnol.* 2014;3:3
119. Hung LC, et al. An improved method for the preparations of nanostructured lipid carriers containing heat sensitive bioactives. *Colloids Surf B: Biointerf.* 2011;87:180-186.
120. Faheim AS, et al. Effect of Zn substitution on the characterization of cobalt ferrite nano particles prepared co-precipitation method. *J Nanomater Mol Nanotechnol.* 2014;4:1.
121. Sato K. Crystallization behaviour of fats and lipids—a review. *Chem Eng Sci.* 2001;5:2255-2265.
122. Vaze OS. Pharmaceutical nanocarriers (liposomes and micelles) in cancer therapy. *J Nanomed Nanotechnol.* 2016;7:e138
123. Álvarez-Bautista A, et al. Poly(N-Isopropylacrylamide-Co-Acrylic Acid) smart nanocarriers for drug release: a study of theophylline delivery. *J Mol Genet Med.* 2015;9:196

124. Dall'Agnol FF and den Engelsen D. Field emission simulations of carbon nanotubes and graphene with an atomic model. *J Nanomater Mol Nanotechnol.* 2014;3:4.
125. Fadel M, et al. Antitumor efficiency of doxorubicin loaded in liposomes and poly ethylene glycol coated ferrofluid nanoparticles. *J Nanomater Mol Nanotechnol.* 2015;4:1
126. Kumar R and Lal S. Synthesis of organic nanoparticles and their applications in drug delivery and food nanotechnology: a review. *J Nanomater Mol Nanotechnol.* 2014;3:4.
127. Li C, et al. Development and Validation of a Method for Determination of Encapsulation Efficiency of CPT-11/DSPE-mPEG2000 Nanoparticles. *Med chem (Los Angeles).* 2016;6:345-348.
128. Heidari A. Pharmaceutical and Analytical Chemistry Study of Cadmium Oxide (CdO) Nanoparticles Synthesis Methods and Properties as Anti- Cancer Drug and its Effect on Human Cancer Cells. *Pharm Anal Chem Open Access.* 2016;2:113.
129. Heidari A. A Chemotherapeutic and Biospectroscopic Investigation of the Interaction of Double-Standard DNA/RNA-Binding Molecules with Cadmium Oxide (CdO) and Rhodium (III) Oxide (Rh<sub>2</sub>O<sub>3</sub>) Nanoparticles as Anti-Cancer Drugs for Cancer Cells' Treatment. *Chemo Open Access.* 2016;5: e129.
130. Kumar B, et al. Aqueous Phase Lavender Leaf Mediated Green Synthesis of Gold Nanoparticles and Evaluation of its Antioxidant Activity. *Biol Med (Aligarh).* 2016;8: 290.
131. Stael C and Cumbal L. Optimized Synthesis of Multicomponent Nanoparticles for Removing Heavy Metals from Artificial Mine Tailings. *Biol Med (Aligarh).* 2016;8: 288.
132. Heidari A. Novel and Stable Modifications of Intelligent Cadmium Oxide (CdO) Nanoparticles as Anti-Cancer Drug in Formation of Nucleic Acids Complexes for Human Cancer Cells' Treatment. *Biochem Pharmacol (Los Angel).* 2016;5:207.
133. Stab J, et al. Flurbiprofen-loaded Nanoparticles Can Cross a Primary Porcine In vitro Blood-brain Barrier Model to Reduce Amyloid-β<sub>42</sub> Burden. *J Nanomedine Biotherapeutic Discov.* 2016;6:140.
134. Gandhi H and Khan S. Biological Synthesis of Silver Nanoparticles and Its Antibacterial Activity. *J Nanomed Nanotechnol.* 2016;7:366.
135. Murgueitio E, et al. Synthesis of Iron Nanoparticles using Extracts of Native Fruits of Ecuador, as Capuli (*Prunus serotina*) and Mortiño (*Vaccinium floribundum*). *Biol Med (Aligarh).* 2016;8:282.
136. AbouAitah KEA, et al. Mesoporous Silica Materials in Drug Delivery System: pH/Glutathione- Responsive Release of Poorly Water-Soluble Pro-drug Quercetin from Two and Three-dimensional Pore-Structure Nanoparticles. *J Nanomed Nanotechnol.* 2016;7:360.
137. Sivaramasamy E, et al. Enhancement of Vibriosis Resistance in *Litopenaeus vannamei* by Supplementation of Biomastered Silver Nanoparticles by *Bacillus subtilis*. *J Nanomed Nanotechnol.* 2016;7:352.
138. AbouAitah KEA, et al. (2016) pH-controlled Release System for Curcumin based on Functionalized Dendritic Mesoporous Silica Nanoparticles. *J Nanomed Nanotechnol.* 2016;7:351.
139. Kumar P, et al. Synthesis of Dox Drug Conjugation and Citric Acid Stabilized Superparamagnetic Iron-Oxide Nanoparticles for Drug Delivery. *Biochem Physiol.* 2016;5:194.
140. Vinoda BM, et al. Photocatalytic Degradation of Toxic Methyl Red Dye Using Silica Nanoparticles Synthesized from Rice Husk Ash. *J Environ Anal Toxicol.* 2015;5:336.

141. El-Hussein A. Study DNA Damage after Photodynamic Therapy using Silver Nanoparticles with A549 cell line. *J Nanomed Nanotechnol.* 2016;7:346.
142. Yasir M, et al. Haloperidol Loaded Solid Lipid Nanoparticles for Nose to Brain Delivery: Stability and In vivo Studies. *J Nanomedic Nanotechnol.* 2015;S7:006.
143. Hajjiyeva FV, et al. Luminescent Properties of Nanocomposites on the Basis of Isotactic Polypropylene and Zirconium Dioxide Nanoparticles. *J Nanomedic Nanotechnol.* 2015;S7:003.
144. Shareena Dasari TP, et al. Antibacterial Activity and Cytotoxicity of Gold (I) and (III) Ions and Gold Nanoparticles. *Biochem Pharmacol (Los Angel).* 2015;4:199.
145. Prasad CH, et al. Catalytic Reduction of 4-Nitrophenol Using Biogenic Silver Nanoparticles Derived from Papaya (*Carica papaya*) Peel extract. *Ind Chem Open Access.* 2015;1:104.
146. Vincze Gy, et al. Nanoheating without Artificial Nanoparticles. *Biol Med (Aligarh).* 2015;7:249.
147. López T, et al. Ag/TiO<sub>2</sub>-SiO<sub>2</sub> Sol Gel Nanoparticles to use in Hospital-Acquired Infections (HAI). *J Material Sci Eng.* 2015;4:196.
148. Abdellatif AAH. Targeting of Somatostatin Receptors using Quantum Dots Nanoparticles Decorated with Octreotide. *J Nanomed Nanotechnol.* 2015;S6:005.
149. Mehrotra A and Pandit JK. Preparation and Characterization and Biodistribution Studies of Lomustine Loaded PLGA Nanoparticles by Interfacial Deposition Method. *J Nanomed Nanotechnol.* 2015;6:328.
150. Singh T and Jain S. Removal of Organics and Metal Ion Nanoparticles from Synthetic Wastewater by Activated Sludge Process (ASP). *J Civil Environ Eng.* 2015;5:182.
151. Turani M, et al. Regeneration of Limbal Stem Cells in the Presence of Silver and Gold Nanoparticles. *J Environ Anal Toxicol.* 2015;5:318.
152. Andocs G, et al. Nanoheating without Artificial Nanoparticles Part II. Experimental Support of the Nanoheating Concept of the Modulated Electro-Hyperthermia Method, Using U937 Cell Suspension Model. *Biol Med (Aligarh).* 2015;7:247.
153. Maithri G, Manasa B, Vani SS, Narendra A, Harshita T (2016) Computational Drug Design and Molecular Dynamic Studies-A Review. *Biomedical Data Mining* 5: 123.
154. Olson JL, et al. Intraocular biocompatibility of gold-nanoparticles. *J Nanomater Mol Nanotechnol.* 2013;2:2.
155. Pan SY, et al. Bifendate treatment attenuates hepatic steatosis in cholesterol/bile salt- and high-fat diet-induced hypercholesterolemia in mice. *Eur J Pharmacol.* 2006;552:170-175.
156. Wang H, et al. Hydrothermal growth of aligned zno nanorods along the seeds prepared by magnetron sputtering and its applications in quantum dots sensitized photovoltaic cells. *J Nanomater Mol Nanotechnol.* 2013;2:2
157. Lombardi Borgia S, et al. Lipid nanoparticles for skin penetration enhancement-correlation to drug localization within the particle matrix as determined by fluorescence and piezoelectric spectroscopy. *J Control Release.* 2005;110:151-163.
158. Hu W, et al. Fibroblast behavior on PMMAEA and PMMAEA-collagen films and nanofibers. *J Nanomater Mol Nanotechnol.* 2013;2:5.
159. Feng F, et al. Preparation, characterization, and biodistribution of nanostructured lipid carriers for parenteral delivery of bifendate. *J Microencapsul.* 2011; 28:280-285.

160. Wiley TS, et al. H1R antagonists for brain inflammation and anxiety: targeted treatment for autism spectrum disorders. *J Pharm Drug Deliv Res.* 2015;4:3.
161. Joshi M and Patravale V. Nanostructured lipid carrier (NLC) based gel of celecoxib. *Int J Pharm.* 2008;346:124-132.
162. Nair AK, et al. Development and comparative assessment of hydrocolloid based against wax based gastro retentive bilayered floating tablet designs of atorvastatin calcium using qbd approach. *J Pharm Drug Deliv Res.* 2015;4:3.
163. Azarnova TO, et al. Effects of the nanostructured complex of biologically active compounds on the freeradical processes and the liver state of the chicken cross "Shaver 2000". *J Nanomater Mol Nanotechnol.* 2013;2:5.
164. Escher M, et al. Pharmacokinetic and pharmacodynamics properties of buprenorphine after a single intravenous administration in healthy volunteers: a randomized, double-blind, placebo-controlled, crossover study. *Clin Ther.* 2007;29:1620-1631.
165. Joshi RR and Devarajan PV. Anionic self-micro-emulsifying drug delivery system (smedd) of docetaxel for circulation longevity. *J Pharm Drug Deliv Res.* 2015;4:3.
166. Mahipalreddy D, et al. Preparation and evaluation of ketoprofen enteric coated mini tablets for prevention of chronic inflammatory disease. *J Pharm Drug Deliv Res.* 2015;4:2.
167. Ghashghaei S and Emtiazi G. Production of hydroxyapatite nanoparticles using tricalcium-phosphate by alkanindiges illinoisensis. *J Nanomater Mol Nanotechnol.* 2013;2:5.
168. Yuan H, et al. Preparation and characteristics of nanostructured lipid carriers for control-releasing progesterone by melt-emulsification. *Colloids Surf B: Biointerf.* 2007;60:174-179.
169. Dey B, et al. Comparative evaluation of hypoglycemic potentials of eucalyptus spp. leaf extracts and their encapsulations for controlled delivery. *J Pharm Drug Deliv Res.* 2013;3:2.
170. Wang JJ, et al. Lipid nanoparticles with different oil/fatty ester ratios as carriers of buprenorphine and its prodrugs for injection. *Eur J Pharm Sci.* 2009;38:138-146.
171. Efentakis M and Siamidi A. Design and evaluation of a multi-layer tablet system based on dextran. *J Pharm Drug Deliv Res.* 2014;3:2.
172. Ma Q, et al. Preparation of CdSe quantum dot sensitized solar cells based on improved successive ionic layer absorption and reaction method. *J Nanomater Mol Nanotechnol.* 2013;2:7.
173. Marcato PD and Durán N. New aspects of nanoparmaceutical delivery systems. *J Nanosci Nanotechnol.* 2008;8:2216-2229.
174. Humayoon R, et al. Quality control testing and equivalence of doxycycline hyclate (100 mg) capsule brands under biowaiver conditions. *J Pharm Drug Deliv Res.* 2014;3:2.
175. Ning Y, et al. A novel biosensor for detection of salmonella typhimurium carrying ssec gene based on the secondary quenching effect of carbon nanotubes. *J Nanomater Mol Nanotechnol.* 2013;2:5.
176. Xu X, et al. Anti-inflammatory activity of injectable dexamethasone acetate-loaded nanostructured lipid carriers. *Drug Deliv.* 2011;18:485-492.
177. Nabid MR, et al. Synthesis of nonionic dendrimer-like star block copolymers based on PCL and PEG as stabilizer for gold nanoparticles. *J Nanomater Mol Nanotechnol.* 2013;2:7.
178. Chattopadhyay N, et al. Solid lipid nanoparticles enhance the delivery of the HIV protease inhibitor, atazanavir, by a human brain endothelial cell line. *Pharm Res.* 2008;25:2262-2271.

179. Ma L, et al. Silver sulfide nanoparticles as photothermal transducing agents for cancer treatment. *J Nanomater Mol Nanotechnol.* 2016;5:2.
180. Zhang P, et al. Impact of dose, route, and composition on the immunogenicity of immune polyelectrolyte multilayers delivered on gold templates. *Biotechnol Bioeng.* 2016.
181. Romih T, et al. The role of PVP in the bioavailability of Ag from the PVP-stabilized Ag nanoparticle suspension. *Environ Pollut.* 2016.
182. He Z, and Alexandridis P. Ionic liquid and nanoparticle hybrid systems: Emerging applications. *Adv Colloid Interface Sci.* 2016.
183. Wu J, et al. Excellently reactive Ni/Fe bimetallic catalyst supported by biochar for the remediation of decabromodiphenyl contaminated soil: Reactivity, mechanism, pathways and reducing secondary risks. *J Hazard Mater.* 2016.
184. Liu H, et al. Interaction between fluorescein isothiocyanate and carbon dots: Inner filter effect and fluorescence resonance energy transfer. *Spectrochim Acta A Mol Biomol Spectrosc.* 2016.
185. Zhang B, et al. Optimization of the tumor microenvironment and nanomedicine properties simultaneously to improve tumor therapy. *Oncotarget.* 2016.
186. Qi Z, and Chen Y. Charge-transfer-based terbium MOF nanoparticles as fluorescent pH sensor for extreme acidity. *Biosens Bioelectron.* 2016.
187. Liu X, et al. Novel hybrid probe based on double recognition of aptamer-molecularly imprinted polymer grafted on upconversion nanoparticles for enrofloxacin sensing. *Biosens Bioelectron.* 2016.
188. Zhao Q, et al. Titania nanotubes decorated with gold nanoparticles for electrochemiluminescent biosensing of glycosylated hemoglobin. *Anal Chim Acta.* 2016.
189. Wang C, et al. Direct electrochemical detection of kanamycin based on peroxidase-like activity of gold nanoparticles. *Anal Chim Acta.* 2016.
190. Paul JW, et al. Drug Delivery to the Human and Mouse Uterus using Immunoliposomes Targeted to the Oxytocin Receptor. *Am J Obstet Gynecol.* 2016.
191. Ivanoff CS, et al. AC electrokinetic drug delivery in dentistry using an interdigitated electrode assembly powered by inductive coupling. *Biomed Microdevices.* 2016;18:84.
192. Lajunen T, et al. Light activated liposomes: Functionality and prospects in ocular drug delivery. *J Control Release.* 2016.
193. Wang S, et al. Biologically Inspired Polydopamine Capped Gold Nanorods for Drug Delivery and Light-mediated Cancer Therapy. *ACS Appl Mater Interfaces.* 2016.
194. Abo Enin HA and Abdel-Bar HM. Solid super saturated self-nanoemulsifying drug delivery system (satSNEDDS) as a promising alternative to conventional SNEDDS for improvement rosuvastatin calcium oral bioavailability. *Expert Opin Drug Deliv.* 2016.
195. Sivaraman A and Banga AK. Novel in situ forming hydrogel microneedles for transdermal drug delivery. *Drug Deliv Transl Res.* 2016.
196. Carbone EJ, et al. Osteotropic Nanoscale Drug Delivery Systems Based On Small Molecule Bone-Targeting Moieties. *Nanomedicine.* 2016.

197. Mäger I, et al. Targeting blood-brain-barrier transcytosis - perspectives for drug delivery. *Neuropharmacology*. 2016.
198. Denzi A, et al. Exploring the Applicability of Nano-Poration for Remote Control in Smart Drug Delivery Systems. *J Membr Biol*. 2016.
199. Gou M, et al. Facile one-pot synthesis of carbon/calcium phosphate/Fe<sub>3</sub>O<sub>4</sub> composite nanoparticles for simultaneous imaging and pH/NIR-responsive drug delivery. *Chem Commun*. 2016.
200. Wim H De J and Paul JA B. Drug delivery and nanoparticles: Applications and hazards. *Int J Nanomedicine*. 2008;3:133–149.
201. Maithri Gundaram. Pharmacoinformatics in Modern Drug Discovery. *Reviews on Pharmaceutics and Nanotechnology* 2016: 4:2.