Dr. NARAYANA NAGESH

Chief Scientist, CCMB, Hyderabad-500007, Telangana, India.

Date of birth: 31-10-1964. Male.

Address for Correspondence: **Dr. N. Nagesh, Chief Scientist,**

Centre for Cellular and Molecular Biology (CCMB), Uppal Road, Hyderabad-7, Telangana, India.

India. + 91- 040 – 27195563 (Office)

FAX : 040-27160591 ; 040-27160311

nagesh@ccmb.res.in or nagesh5112@gmail.com

http://e-portal.ccmb.res.in/e-space/nagesh/index.html

➢ Educational Details.

Master of Science (Chemistry) from S.V. University, Tirupati, A.P, India.
Master of Philosophy (Chemistry) from S.V. University, Tirupati, A.P, India.
Doctor of Philosophy (Chemistry) Title of the thesis- "*Studies on the Structure and Interaction of G-Quadruplex DNA with Metal Ions and Drugs".*
Post-Doctoral Experience- With Prof. Edwin A Lewis, Department of Chemistry at North Arizona University, Flagstaff, Arizona, USA. Involved in the *"Studies on Bcl2 Quadruplex DNA interaction with Porphyrins".*

➢ Professional Details.

Joined CCMB as "Scientist-B" in the year 1990. Serving CCMB now as "Chief Scientist".

➢ Research interests and area of expertise.

Interested in the studies involving G-quadruplex DNA and its interaction with metals, macromolecules, ligands.

Synthesis and identification of novel organic and inorganic complexes that will improve anti- cancer, pro-apoptotic and anti-cancer cell proliferation activity both under *in vitro* and *in vivo* conditions by topological, pharmacophores modification of synthetic molecules.

Biophysics, Biochemistry, Chemistry, Medicinal Chemistry and Chemical Biology.

➢ Research Projects.

I. Projects completed.

Indo-Swiss Joint Research Project (ISJRP):

Project obtained from- DST March, 2012 to February, 2015. Visited Department of Chemistry, University of Neuchatel, Switzerland as part of the ISJRP project. Prof.

Bruno Therrien was the PI from Switzerland side and myself is the PI from Indian side. Title of the project –"Interaction of organic and organometallic molecules with G-quadruplex DNA and evaluating them as DNMT and HDAC inhibitors".
Papers published under this project – 11.
Project completed.

DST project:

Project obtained from DST during February, 2012 to January, 2015.
Title of the project - "The effect of ITPase, IMPDH, GMPS enzymes on 6 mercapto-purine metabolism and toxicity in childhood acute lympho blastic leukemia."
Papers Published under this project – 3.
Project completed.

NanoSHE project: (a XII FYP project).
Project obtained from CSIR.
Member of the team.
Project completed.

MLP Project from CSIR:

Title of the project - Nano-Biosensor and Microfluidics for Healthcare - Affordable Paper-based microfluidic devices for HCV diagnosis.
Project Duration: 24 months (from 2018-2020).
Papers published under this project – 1 (communicated).
Project completed.

FTT project (from CCMB side).

Project obtained from CSIR during 2018
Project title: **"**Multi-analyte Sensing Platforms and Molecular Probes for Detection of Target Biomarkers Using Electrochemical and Optical Methods."
Papers published under this project – 1 (1 communicated)
Project completed.

II. Projects in progress:

1. Having one **FTT** CSIR, 2020-2022 – Co-PI in a project with title "Homocysteine Specific Novel Sensor for Diagnostic Use" in association with CSIR-CSMCRI and CSIR-CECRI.

2. Co-PI in the DBT funded project, 2019-2002 "Development of novel gene/vaccine delivery vectors derived from novel animal adenoviruses isolated from India".

3. PI (PI from the Nodal lab) in the CSIR funded project "Corona Sample testing project". From 2021-22.

4. PI (PI from the Nodal lab) in the CSIR funded project "mRNA platform for Vaccines and Therapeutics" from 2021-22.

➢ Students Guided: about 24.

Total about 24 students at different levels of University education.

- **Dissertation students:**

Thirteen (5- M Tech, 2- M Pharm., and 6 - M.Sc., Students) Graduate students: Four (one from USA and three from India). Summer Trainees: Seven.

➢ Examiner for Phd thesis.

Several PhD thesis were examined as an external PhD thesis examiner in various Institutes/Universities in different parts of India.

➢ Reviewer for journals and Funding agencies.

Nature Scientific Reports, Biochimica et Biophysica Acta (BBA) - General Subjects, ChemCom., RSC- Advances, PLoS ONE, Tumor Biology, Bioinorganic Chemistry and Application Journal, Current Analytical Chemistry Journal, Advances in Applied Research, Journal of Nucleic Acids, and several other journals.

Editorial board member for several reputed international journals.

Reviewer for PRIB 2008 international conference, IEEE Congress on Evolutionary Computation, 2010.

Reviewer for the projects submitted to National (CSIR, DST) and International (MRC,UK, Fondazione Cassa di Risparmio di Padova e Rovigo, Italy and Czech Science Foundation, Czech Republic) funding agencies.

Reviewer for projects submitted to TWAS-COMSTECH Research Grants Committee under Pharmaceutical Sciences.

External reviewer for the academic positions in University of Sharjah, Sharjah

➢ Presentations in the International and National conferences.

Several presentations were given in various national and international workshops / symposia etc., Here under only selected ones are given:

Presented the work titled “Exploring the interactions of a c-MYC model G-quadruplex DNA with $TMPyP_4$ using thermodynamic and fluorescence” in the ANAS-CHM meeting held at NAU, Flagstaff, USA during 2007.

Oral presentation on “G-quadruplex DNA interaction with drugs- a brief over view” in an US National Conference held at Carefree, AZ, USA and several lectures at National and International conferences.

Poster presentation in IInd International conference G-quadruplex DNA meeting, April 18–21, 2009, Louisville, KY, USA.

Oral presentation on “Role of G-quadruplex DNA and small molecules in cancer cure, effect of ligand side chain modification in inducing apoptosis an *in vitro* and *in vivo* studies” in the Department of Chemistry, University of Neuchatel, Neuchatel, Switzerland in August, 2012.

The studies on interaction of G-quadruplex DNA with different cationic porphyrins were presented in 246th ACS National Meeting and Exposition September 8-12, 2013, Indianapolis, Indiana USA.

Besides these presentations in international conferences/universities/institutes, several presentations were given in India in various workshops, conferences and meetings.

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Achievements.

M.Sc., – University II rank in the year 1987.
MPhil.,- University Merit scholarship, from 1987- 1990.
PhD.,-Received NAU-TRIF award and Arizona Biomedical Research (ABRC) award from USA-2006-2007.

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Details of Patents filed.

1. Title of the Patent: Synthesis of N-((1-pheny1-9H-pyrido[3,4-b]indo1-3- y1) methy1) cinnamamides as potential Anticancer Agents.

File Reference No: PT-649. **CSIR Ref No.:** 0272NF2015.
Inventors: Ahmed Kamal, Manda Sathish, **Narayana Nagesh**, Nagula Shankaraiah, Sabanis Chetan Dushantrao, Namballa Hari Krishna.
Countries: India, US, UK, Germany, France.
International Patent Classification: C07D 471/04(2006.01); A61K 31/437(2006.01).

2. Title of the Patent: A process for preparing 2-pyrimidyl substituted-2,3-dihydro-1*H*-naphtho[1,2-e][1,3] oxazines.

File Reference No: 201921033132.

Inventors: Rakhi Gajanan Gawali, Raghunath Bhikaji Bhosale, Sachin Pandurang Shirame, **Narayana Nagesh.**
Country: India.

➢ Google scholar citation indices (as on 09-08-2021).

Citations - 1869, h- index – 26, i10 index - 53.

Google Scholar link: https://scholar.google.com/citations?user=LyEEME8AAAAJ&hl=en

➢ List of publication.

(Till now, 74 research articles were published in various International/ national peer reviewed journals).

Published about 74 research articles in various national and international high impact journals. The details of publications are provided below, in the reverse chronological order.

2021

1. Benzimidazole-1,2,3-triazole Hybrid Molecules: Synthesis and Study of their Interaction with G-quadruplex DNA.(2021) Ravindra M. Kumbhare, Singu Padma, Ushasri Chilakamarthi, Namita S. Mahadik, Keerti Bhamidipati, Narasimhulu Valipenta, Santosh Mokale, **Narayana Nagesh***. RSC Med. Chem., 12, 416-429. (IF- 3.4)

2. Synthesis and biological evaluation of novel imidazo[1,2-a]pyridine-oxadiazole hybrids as anti-proliferative agents: Study of microtubule polymerization inhibition and DNA binding.(2021) Dilep Kumar Sigalapalli, Gaddam Kiranmai, G.Parimala Devi, Ramya Tokala, Sravani Sana, Chaturvedula Tripura, Govinda Shivaji Jadhav, Manasa Kadagathur, Nagula Shankaraiah, **Narayana Nagesh***, Bathini Nagendra Babu, Neelima D.Tangellamudi. Bioorganic and Medicinal Chemistry, 43, 116277. https://doi.org/10.1016/j.bmc.2021.116277. (IF-3.6)

3. Development of β-carboline-benzothiazole hybrids via carboxamide formation as cytotoxic agents: DNA intercalative topoisomerase IIα inhibition and apoptosis induction. (2021) Ramya Tokala, Surbhi Mahajan, Gaddam Kiranmai, Dilep Kumar Sigalapalli, Sravani Sana, Stephy Elza John, **Narayana Nagesh***, Nagula Shankaraiah. Bioorganic Chemistry, 106, 104481. (IF-5.2)

4. 3-Functionalised Benzenesulphonamide based 1,3,4-oxadiazoles as Selective Carbonic Anhydrase XIII Inhibitors: Design, Synthesis and Biological Evaluation. (2021) Mohammed Arifuddin. Baijayantimala Swain, Abhay, Priti Singh, Andrea Angeli, Kamtam Aashritha, **Narayana Nagesh**, Claudiu T. Supuran. Bioorganic Medicinal Chemistry Letters., 38,127856. (IF-2.4)

2020

1. Magnetic bead-amplified voltammetric detection for carbohydrate antigen 125 with enzyme labels using aptamer-antigen-antibody sandwiched assay. (2020) Mohanraj Sadasivam, Arunkumar Sakthivel , **Narayana Nagesh,** Shekhar Hansda, Murugan Veerapandian, Subbiah Alwarappan, Pandiaraj Manickam. *Sensors & Actuators: B. Chemical*, 312, 127985-127991. https://doi.org/10.1016/j.snb.2020.127985. (IF- 7.3)

2. Amberlite IR-120H Catalyzed Synthesis of 1,3-Diphenylpyrazole-chromenoquinolin-6-one Compounds and Their Biological Evaluation.(2020) Jeshma Kovvuri, Burri Nagaraju, C. Ganesh Kumar, Sunitha Rani Routhu, Jitendra Gour, Kishore Mullagiri, **Narayana Nagesh** and Ahmed Kamal. *American Journal of Medicinal Chemistry*, Volume 2(1), Page. 2-16. doi:10.31487/j.AJMC.2020.01.05.

3. Design and Synthesis of β-carboline linked aryl sulfonyl piperazine derivatives: DNA topoisomerase II inhibition with DNA binding and apoptosis inducing ability.(2020) Kesari Lakshmi Manasa, Sowjanya Thatikonda, Dilep Kumar Sigalapalli, Arpita Sagar, Gaddam Kiranmai, Arunasree M Kalle, Mallika Alvala, Chandraiah Godugu*, **Narayana Nagesh*,** Bathini Nagendra Babu*. *Bioorganic Chemistry*, doi: https://doi.org/10.1016/j.bioorg.2020.103983. (IF- 5.2)

4. Review Article: The *β*-carboline alkaloids in cancer therapy- recent advancements in this area. (2020) Kesari Lakshmi Manasa*, Sanam Swetha Yadav, **Narayana Nagesh***. *IOSR Journal Of Pharmacy And Biological Sciences (IOSR-JPBS)*.

5. REVIEW ARTICLE : Recent Insights into β-Carboline Alkaloids with Anticancer Potential. (2020) Lakshmi Manasa K, Swetha Yadav S, Srikanth D, **Narayana Nagesh*** and Mallika Alvalaa. *Modern Approches in Drug Design.* 3(1). *(Accepted).*

6. Design and synthesis of substituted (1-(benzyl)-1*H*-1,2,3-triazol-4-yl)(piperazin-1-yl)methanone conjugates: Study on their apoptosisinducing ability and tubulin polymerization inhibition. (2020) Kesari Lakshmi Manasa, Sowjanya Thatikonda, Dilep Kumar Sigalapalli, Sowmya Vuppaladadium, Ganthala Parimala Devi, Chandraiah Godugu, Mallika Alvala, **Narayana Nagesh,*** and Bathini Nagendra Babu*. RSC Medicinal Chemistry,* https://doi.org/10.1039/D0MD00174K *(Accepted).*(IF-2.4)

2019

1. A New Class of Naphthalimides derivatives: Design, synthesis, DNA-interaction and topoisomerase II inhibition studies. (2019) N. Sankara Rao, **Narayana Nagesh,***V. Lakshma Nayak, Satish Sunkari,Ramya Tokala, Gaddam Kiranmai, Phanindranath Regur, Nagula Shankaraiah, and Ahmed Kamal*. *Med. Chem. Commun*.,10,72 –79 (IF-2.5) DOI: 1 0.1039/c 8md00395e. (IF-2.5)

2. Synthesis and Biological Evaluation of Pyrazole Linked Benzothiazole-β-Naphthol Derivatives as Topoisomerase I Inhibitors with DNA Binding Ability. (2019) Burri Nagaraju, Sateesh Avula, Mohd Adil Shareef, Manasa Kadagathur, Jeshma Kovvuri, Sunitha Rani Routhu, **Narayana Nagesh*,** Praveen Reddy Adiyala, C Ganesh Kumar* and Ahmed Kamal.* *Biorganic and Medicinal Chemistry*, 27, 708–720.

https://doi.org/10.1016/j.bmc.2019.01.011. (IF-3.6)

3. Synthesis and *in vitro* cytotoxicity evaluation of β-carboline-combretastatin carboxamides as apoptosis inducing agents: DNA intercalation and topoisomerase-II inhibition. (2019) Chetna Jadala, Manda Sathish, T. Srinivasa Reddy, Velma Ganga Reddy, Ramya Tokala, Suresh K. Bhargava, Nagula Shankaraiah,*, **Narayana Nagesh,*** Ahmed Kamal,* *Bioorganic & Medicinal Chemistry,* 27, 3285–3298. (IF-3.6)

4. Design and synthesis of substituted dihydropyrimidinone derivatives as cytotoxic and tubulin polymerization inhibitors.(2019) Sravani Sana, Ramya Tokala, Deepti Madanlal Bajaj, **Narayana Nagesh**, Kiran Kumar Bokara, Gaddam Kiranmai, Uppu Jaya Lakshmi, Swapna Vadlamani, Venu Talla, Nagula Shankaraiah, *Bioorganic Chemistry,* 93 (2019) 103317. (IF- 5.2)

2018

1. Design,synthesis and biological evaluation of new β-carboline-bisindole compounds as DNA binding, photocleavage agents and topoisomerase inhibitors. (2018) Jeshma Kovvuri , Burri Nagaraju, V. Lakshma Nayak, Ravi kumar Akunuri, M.P.Narasimha Rao, Ayyappan Ajitha, **Narayana Nagesh*,** Ahmed Kamal*. *European Journal of Medicinal Chemistry.* Volume 143, 1563-1577. (IF- 4.8).

2. Synthesis of podophyllotoxin linked β-carboline congeners as potential anticancer agents and DNA topoisomerase II inhibitors**.** (2018) Manda Sathish, Botla Kavitha, V. Lakshma Nayak, Yellaiah Tangella, Ayyappan Ajitha, Shalini Nekkanti, Abdullah Alarifi, Nagula Shankaraiah, **Narayana Nagesh*,** Ahmed Kamal*. *European Journal of Medicinal Chemistry*. Volume 144, 557-571. (IF-5.6).

3. Iodine-mediated one-pot intramolecular decarboxylation domino reaction for accessing functionalized 2-(1,3,4-oxadiazol-2-yl)anilines with carbonic anhydrase inhibitory action. (2018) Srinivas Angapelly, P. V. Sri Ramya, Rohini Sodhi,Andrea Angeli, Krishnan Rangan, **Narayana Nagesh**, Claudiu T. Supuran, Mohammed Arifuddin. *Journal Of Enzyme Inhibition And Medicinal Chemistry,* 33(1),615-628. *https://doi.org/10.1080/14756366.2018.1443447*. (IF-3.6)

4. BODIPY-based Ir (III) rectangles containing bis-benzimidazole ligands with highly selective toxicity obtained through self-assembly. (2018) Gajendra Gupta, Abhishek Das, Seon Woong Lee, Ji Yeon Ryu, Junseong Lee, **Narayana Nagesh**, Nripendranath Mandal, Chang Yeon Lee. *Journal of Organometallic Chemistry,* 868, 86-94. (IF-2.2)

5. BODIPY-based Ru(II) and Ir(III) organometallic complexes of avobenzone, a sunscreen material: potent anticancer agents. (2018) Gajendra Gupta,* Shirisha Cherukommu,Gunda Srinivas,Seon Woong Lee,Sung Hwan Mun, Jaehoon, Jung, **Narayana Nagesh*** and Chang Yeon Lee*. *J of Inorg. Biochem.,* Vol.189, 17-29 (IF-3.4).

6. Synthesis of DNA interactive C3-*trans*-cinnamide linked β-carboline conjugates as potential cytotoxic and DNA topoisomerase I inhibitors.(2018) Manda Sathish, Sabanis Chetan Dushant Rao, Shalini Nekkanti, Ramya Tokala, Soujanya Thatikonda,YellaiahTangella, Gunda Srinivas, Shirisha Cherukommu, Namballa Hari Krishna, Nagula Shankaraiah*, **Narayana Nagesh*,** Ahmed Kamal *.*Bioorganic and Medicinal Chemistry*, 26, 4916–4929. (IF-3.6) .

7. Novel amphiphilic G-Quadruplex binding synthetic derivative of TMPyP4 and its effect on cancer cell proliferation and apoptosis induction (2018) Ushasri Chilakamarthi, Koteshwar Devulapally, Sudhakar Jinka, Vamsi Krishna Narra, Kathyayani Sridharan, **Narayana Nagesh,*** Lingamallu Giribabu.* *Biochemistry*, *57* (46), 6514-6527. DOI: 10.1021/acs.biochem.8b00843 (IF- 3.0)

2017.

1. Design, synthesis, *in vitro* and *in vivo* evaluation of (Z)-3,4,5-Trimethoxystyryl Benzene - sulfonamides /Sulfonates as highly potent tubulin polymerization inhibitors. (2017) Rasala Mahesh, V. Lakshma Nayak, Korrapati Suresh Babu, Riyaz, Sd., Thokhir B. Shaik, G. Bharth Kumar, Mallipeddi. P. L., Ch. Ratna Reddy, Kunta Chandra Shekar, Jedy Jose, **Narayana Nagesh,*** Ahmed Kamal.* *ChemMedChem*. 12, 678–700. DOI-10.1002/cmdc.201600643. (IF-3.1).

2. 2-aryl benzimidazole conjugate induced apoptosis in human breast cancer MCF-7 cells through caspase independent pathway. (2017) V. Lakshma Nayak, **Narayana Nagesh**, A. Ravikumar, Chandrakant Bagul, M.V.P.S. Vishnuvardhan, Vunnam Srinivasulu, Ahmed Kamal. *Apoptosis.* 22,118-134. (IF- 4.5).

3. Forced degradation studies of lansoprazole using LC-ESI HRMS and 1H-NMR experiments: in vitrotoxicity evaluation of major degradation products. (2017) G. Shankar, Roshan M. Borkar, Suresh Udutha, Lalitha Guntuku, VGM Naidu, **Narayana Nagesh** and R. Srinivas. *Journal of Mass Spectrometry*. 52(7), 459–471. DOI-10.1002/jms.3949. (IF- 2.38).

4. An efficient one-pot approach for the regio and diastereoselective synthesis of transdihydrofuran derivatives: Cytotoxicity and DNA-binding studies.(2017) Yellaiah Tangella, Manasa Lakshmi Kesari, Lakshma Nayak V, Sathish Manda, Sridhar Balasubramanian, AbdAllah Alarifi, **Narayana Nagesh*** and Ahmed Kamal *. *Org. Biomol. Chem*., 15, 6837-6853. DOI: 10.1039/ c7ob01456brsc.li/obc. (IF- 3.6).

5. Telomerase inhibition and human telomeric G-quadruplex DNA stabilization by a β-carboline–benzimidazole derivative at low concentration.(2017) Kranthikumar Yadav, Penchala Narasimha Rao Meka, Sudeshna Sadhu, Sravanthi Devi Guggilapu, Jeshma Kovvuri, Ahmed Kamal, Ragampeta Srinivas, Panuganti Devayani, Bathini Nagendra Babu, and **Narayana Nagesh*.** *ACS Biochemistry*, 56 (33), 4392–4404. DOI: 10.1021/acs.biochem.7b00008. (IF-3.0).

2016.

1. Synthesis, DNA binding affinity and anticancer activity of novel 4Hbenzo[g][1,2,3]triazolo [5,1-c][1,4]oxazocines. (2016) K. N. Visweswara Sastry, Sunitha Routhu, Soma Gupta Datta, **Narayana Nagesh,*** Bathini Nagendra Babu, Jagadeesh Babu Nanubolu, C. Ganesh Kumar, Ram Awatar Maurya* and Ahmed Kamal*. *Organic Biomolecular Chemistry*, 14, 9294–9305. (I.F- 3.6).

2. Benzo[b]furan derivatives induces apoptosis by targeting the PI3K/Akt/ mTOR signaling pathway in human breast cancer cells. (2016) Ahmed Kamal, V. Lakshma Nayak, **Narayana Nagesh**, M.V.P.S. Vishnuvardhan, N.V. Subba Reddy. *Bioorganic Chemistry*, 66, 124-131**,** DOI: 10.1039/C6CE00139D. (IF -5.2).

3. Association of mitochon- drial displacement loop polymorphisms with risk of colorectal cancer in south Indian population. (2016) Suresh Govatati, Bulle Saradamma, Sravanthi Malempati, Divyamaanasa Dasi, Murali Krishna Thupurani, **Narayana Nagesh**, Sisinthy Shivaji, Manjula Bhanoori, Raghava Rao Tamanam, Varadacharyulu Nallanchakravarthula, Sreenivasa Rao Pasupuleti. *Mitochondrial DNA Part A: DNA Mapping, Sequencing, and Analysis*, http://dx.doi.org/10.3109/24701394.2016.1160076. (IF- 1.8).

4. Anticancer activity of large metalla-assemblies built from half-sandwich complexes. (2016) Gajendra Gupta, Gopi Suresh Oggu, **Nagesh Narayana**, Kiran Kumar Bokara and Bruno Therrien*. CrystEngComm*, 18, 4952-4957, DOI:10.1039/C6CE00139D. (IF-3.8).

5. Manganese-superoxide dismutase (Mn-SOD) overexpression is a common event in colorectal cancers with mitochondrial microsatellite instability. (2016) Suresh Govatati, Sravanthi Malempati, Bulle Saradamma, Dasi Divyamaanasa, B. Prathap Naidu, Pallaval Veera Bramhachari, **Nagesh Narayana**, Sisinthy Shivaji, Manjula Bhanoori,Raghava Rao Tamanam,Pasupuleti Sreenivasa Rao, Varadacharyulu Nallanchakravarthula. *Tumor Biology*, (10.1007/s13277-016-4918-0). (IF-3.6).

6. Identification and characte- rization of stressed degrada- tion products of rabeprazole using LC /ESI / MS /MS and 1H-NMR experiments: In vitrotoxicity evaluation of major degradation products. (2016) Murali Mohan Bhandi, Roshan M. Borkar, G. Shankar, Snehal Raut, **Narayana Nagesh** and R.Srinivas. *RSC Advances*, 6, 10719-10735. (IF-3.8).

7. Design and synthesis of C3-tethered 1,2,3-triazolo-ß-carboline derivatives: Anticancer activity, DNA-binding ability, viscosity and molecular modeling studies. (2016) Nagula Shankaraiah, Chetna Jadala, Shalini Nekkanti, Kishna Ram Senwar , **Narayana Nagesh** , Shweta Shrivastava, V. G. M. Naidu, Manda Sathish , Ahmed Kamal. *Bioorganic Chemistry*, 64, 42-50. (IF-5.2).

2015.

1. Phenotypic Variations in the 22q11 Deletion Syndrome—Study in a South Indian Population (2015) Satish V.S.S. Pilli, D. Anuradha, N.Manoj, **N. Nagesh**, Raghavannair Suresh Kumar, Gopala Krishna Aradhyam. *Indian J Pediatrics*, DOI : 10.1007/s12098-015-1954-5. (IF- 2.0).

2. Sugar-boronate ester scaffold tethered pyridyl -imine palladium(II) complexes:Synthesis and their in vitro anticancer evaluation. (2015) Eda Rami Reddy, Rajiv Trivedi*, Akella Venkata Subrahmanya Sarma, Balasubramanian Sridhar,Hasitha Shilpa Anantharaju,Dharmarajan Sriram, Perumal Yogeeswari, **Narayana Nagesh*** *Dalton Transactions*, 44,17600-17616. (IF- 4.1).

3. Design and synthesis of dithiocarbamate linked ß -carboline derivatives: DNA topoisomerase II inhibition with DNA binding and apoptosis inducing ability. (2015) Ahmed Kamal*, Manda Sathish, V. Lakshma Nayak, Vunnam Srinivasulu, Botla Kavitha, Yellaiah Tangella, Dinesh Thummuri, Chandrakant Bagul, Nagula Shankaraiah and **Narayana Nagesh*.** *Bioorganic & Medicinal Chemistry*, 23, 5511-5526. (IF- 3.2).

4. Biological activities of pyrenyl-derived thiosemicarbazone half-sandwich complexes. (2015) Nandhagopal Raja, Neelakandan Devika, Gajendra Gupta, Vadithe Lakshma Nayak, Ahmed Kamal, **Narayana Nagesh*,** Bruno Therrien*. *Journal of Organometallic Chemistry*, 794, 104-114. doi:10.1016/j.jorganchem.2015.06.036. (IF-2.3).

5. DNA-Binding Affinity and Anticancer Activity of ß -Carboline-Chalcone Conjugates as Potential DNA Intercalators: Molecular Modeling and Synthesis. (2015) Nagula Shankaraiah, K. P. Siraj, Shalini Nekkanti, Vunnam Srinivasulu, Pankaj Sharma, Kishna Ram Senwar, Manda Sathish, M. V. P. S. Vishnuvardhan, Sistla Ramakrishna, Chetna Jadala, **Narayana Nagesh** and Ahmed Kamal. *Bioorganic Chemistry*, 59, 130-139. (IF-5.2).

6. A dihydroindolizino indole derivative selectively stabilizes G-quadruplex DNA and down regulates c-MYC expression in human cancer cells. (2015) **Narayana Nagesh*,** G. Raju, R. Srinivas, P. Ramesh, M. Damoder Reddy, Ch. Raji Reddy. *Biochimica et Biophysica Acta (BBA)-General Subjects*, 1850(1), 129-140. (IF-4.4).

2014.

1. Contribution of cyclin D1 (CCND1) and E-cadherin (CDH1) 5 alterations to colorectal cancer susceptibility: a case-control study. (2014) Suresh Govatati, Gopi Krishna Singamsetty, Nayudu,Nallabelli, Sravanthi, Malempati, Pasupuleti Sreenivasa Rao,Venkata Kranthi Kumar, Madamchetty, Sowdamani Govatati, Rudramadevi Kanapuram, **Nagesh Narayana**, Manjula Bhanoori, Kondaiah Kassetty, Varadacharyulu Nallanchakravarthula. *Tumor Biology*, DOI.10.1007/s13277-014-2505-9. (IF-3.7).

2. Antiproliferative activities of trithiolato-bridged dinuclear arene osmium complexes. (2014) Gajendra Gupta, **Narayana Nagesh** , Benjamin S. Murray, Paul J. Dyson, Bruno Therrien. *Inorganica Chimica Acta (ICA),* 423, 31-35. http://dx.doi.org/10.1016/j.ica.2014. 07.050. (IF-2.0).

3. Exploiting Natural Products to Build Metalla Assemblies :The Anticancer Activity of Embelin -Derived Rh(III) and Ir(III) Metalla -Rectangles (2014) Gajendra Gupta, Jerald Mahesh Kumar, Amine Garci, **Narayana Nagesh*** and Bruno Therrien*. *Molecules*, 19, 6041-6046. doi: 10.3390/molecules19056031. (IF-2.7).

4. Incidence of Bcr-Abl kinase domain mutations in imatinib refractory chronic myeloid leukemia patients from South India. (2014) Sailaja Kagita, Srihari Uppalapati, Sangeeta Jiwatani, Vijay Gandhi Linga, Sadasivudu Gundeti, **Narayana Nagesh**, Raghunadharao Digumarti. *Tumor Biology*, 13277-014-1926-9, DOI:10.1007/s. (IF- 3.7).

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