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Post-Doc, Ph.D

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Current Position

Ex-Post-doctoral research fellow

Dr. Satya Narayan Das, All India Institute of Medical Sciences (AIIMS), New Delhi, India.

Studies on PI3K/AKT signaling and anti-tumor effects of its targeted disruption in oral cancer.

Area of Research Interest

Immunology, Cancer biology, Molecular Biology, Microbiology, Anti-aging, Nutraceuticals, Cell signaling

Educational Qualification

Degree	Subject	Institution	Passing year	Division
Ph.D.	Biotechnology (Tumor immunology)	All India Institute of Medical Sciences (AIIMS), New Delhi, India	2016	-
M.Sc.	Microbiology	Department of Microbiology, University of Delhi, New Delhi, India.	2009	First
B.Sc.	Microbiology	Swami Shraddhanand College, University of Delhi, New Delhi, India.	2007	First

Research experience

Post doctoral research fellow	Dr. Satya N Das Dr. S.C. Sharma	Department of Biotechnology and ENT, All India Institute of Medical Sciences (AIIMS), New Delhi, India.	Studies on PI3K/AKT signaling and anti-tumor effects of its targeted disruption in oral cancer.
Ph.D. 2010-16	Dr. Satya N. Das	Department of Biotechnology All India Institute of medical sciences, New Delhi, India.	Phenotypic and functional characterization of T-regulatory cells in oral squamous cell carcinoma.
M . S c . Dissertation 2009	Dr. Amita Gupta	Department of Microbiology, South Campus, University of Delhi, , New Delhi, India.	Cloning and expression of toxin genes (30) encoded by <i>Mycobacterium tuberculosis</i> and assessment of their cell killing activity.
Training 2010	Dr. Baskar Singh	Department of Biophysics All India Institute of medical sciences, New Delhi, India.	Cloning, Expression and Purification Human Synucleins.

Publications

1. K Devraja, **Aggarwal S**, Verma SS, Gupta SC. Clinico-pathological peculiarities of human papilloma virus driven head and neck squamous cell carcinoma: A comprehensive update. *Life Sciences {Accepted}* 2020 **IF: 3.5**
2. **Aggarwal S**, Verma SS, Aggarwal S, Gupta SC. Drug Repurposing for Breast Cancer Therapy: Old Weapon for New Battle. *Semin Cancer Biol.* 2019 Sep21.doi:10.1016/j.semcancer.2019.09.012. **IF: 10.0**
3. **Aggarwal S**, John S, Sapra L, Sharma SC, Das SN. Targeted disruption of PI3K/Akt/mTOR signaling pathway via PI3K inhibitors, promotes growth inhibitory effects in oral cancer cells. *Cancer Chemotherapy and Pharmacol.* 2019;83(3):451-461. **IF: 3.0**

4. Gupta SC, Kunnumakkara AB, **Aggarwal S**, Aggarwal BB. Inflammation, a double-edge sword for cancer and other age-related diseases. *Frontiers in Immunol.* **2018**;9:2160. **IF: 5.6**
5. **Aggarwal S**, Das SN. Response to the query raised by Lydia Bernardo. *Oral Dis.* **2018** May;24(4):674. doi: 10.1111/odi.12673. **IF: 2.6**
6. **Aggarwal S**, Sharma SC, Das SN. Phenotypic & functional characterization of regulatory T cells in patients with oral squamous cell carcinoma. *J Surg Oncol.* **2017**;116(8):1103-1113. **IF: 3.1**
7. Arora R, Bharti V, Gaur P, **Aggarwal S**, Mittal M, Das SN. Operculina turpethum extract inhibits growth and proliferation by inhibiting NF-kB, COX-2 and cyclin D1 and induces apoptosis by up regulating P53 in oral cancer cells. *Archives of Oral Biol.* **2017**; 80:1–9. **IF: 2.0**
8. **Aggarwal S**, Das SN. TDG shows antitumor activity by β -GBP and Treg inhibition in oral squamous cell carcinoma *Oral Dis.* **2016**;22(5):445-53. **IF: 2.6**
9. **Aggarwal S**, Das SN. Garcinol inhibits tumour cell proliferation, angiogenesis, cell cycle progression and induces apoptosis via NF-kB inhibition in oral cancer. *Tumour Biol.* **2016**;37(6):7175-84. **IF: 3.6**
10. Kapoor V, **Aggarwal S**, Das SN. Antitumor activities of 6-Gingerol in human oral and cervical cell lines are mediated by caspase-dependent apoptosis and cell cycle arrest. *Phytother Res.* **2016**;30(4):588-95. **IF: 3.7**
11. **Aggarwal S**, Sharma SC, Das SN. Galectin-1 and Galectin-3: Plausible tumor markers for oral squamous cell carcinoma and suitable targets for screening high-risk population. *Clin. Chim. Acta* **2015**; 442:13-21. **IF: 3.0**
12. **Aggarwal S**, Devaraja K, Sharma SC, Das SN. Expression of vascular endothelial growth factor (VEGF) in patients with oral squamous cell carcinoma and its clinical significance. *Clin. Chim. Acta* **2014**; 436:35–40. **IF: 3.0**

Gene Bank Submissions

1. GenBank: JN088689.1, *Ovis aries* isolate AIIMSBPSY001 alpha-synuclein mRNA, complete cds (**2011**)

Published abstracts (International conferences)

1. **Aggarwal S**, Sharma SC, Das SN. Abstract A167: Prevalence of TREG cells and effects of their inhibition on growth of oral cancer cells. *Cancer Immunol Res* 2019; 7 (2 Supplement), A167-A167 **IF: 8.6**
2. SN Das, S **Aggarwal**, SC Sharma. Abstract A67: Phenotypic and functional dynamics of CD4+CD25+FOXP3+ regulatory T cells in patients with tobacco-related oral squamous cell carcinoma. *Cancer Immunol Res* 2017;5(3)A67 **IF: 8.6**
3. **Aggarwal S**, Das SN, Sharma SC. 89P Abundance of Treg cells in oral cancer patients and effects of their inhibition on growth of cancer cells. *Annals of Oncology* **2017**;28(11). **IF: 14.1**
4. **Aggarwal S**, Das SN. Garcinol impedes cell proliferation and promotes apoptosis in oral squamous cell carcinoma via NF-kB and COX-2 inhibition. *J of carcinogenesis.* **2016**;15:S267. **IF: 3.6**
5. **Aggarwal S**, Satya N. Das, and Suresh C. Sharma Abstract A068: Imbalance in regulatory T (Treg) cells frequency in peripheral circulation of patients with oral squamous cell carcinoma and their effects on growth of oral cancer. Cancer immunology Research. *Cancer Immunol Res* **2016**;4:A068. **IF: 8.6**
6. **Aggarwal S**, Das SN, Sharma SC, and Devaraja K. Abstract A01: Vascular endothelial growth factor (VEGF) expression in patients with oral squamous cell carcinoma and its effects on tumor cell growth. *Mol cancer ther* **2015**;14:A01. **IF: 3.6**

Manuscripts under construction

1. **Aggarwal S**, Bhadana K, Hassan I, Taj M, Das SN. Anti-tumour activity of Cinnamomum zeylanicum and its extract on growth of OSCC cells via dysruption of cell signalling pathways. (Manuscript under construction)
2. **Aggarwal S**, Sharma SC, Das SN. Metastasis-associated tumor antigen-1 (MTA-1): A plausible biomarker for tobacco-related oral squamous cell carcinoma and suitable targets for screening high-risk population. (Submitted).
3. Mittal M, Kapoor V, **Aggarwal S**, Sapra L, Singh MK, Sharma SC, Das SN. EGCG arrests cell proliferation and invasion while inducing cell cycle arrest and apoptosis by modulating the AKT/mTOR signaling in oral squamous cell carcinoma.

Awards

2019	Young Researcher Award + Cash prize	2 nd National Biomedical Research Competition (NBRCOM) 2019, Best Poster: Abundance of Treg cells in oral cancer patients and effects of their inhibition on growth of cancer cells.	2 nd National Biomedical Research Competition (NBRCOM) 2019	Postgraduate Institute of Medical Education and Research (PGIMER), Chandigarh, India.
2019	Travel award	International Union of Immunological Societies (IUIS) and Federation of Clinical Immunology Societies (FOCIS) co-sponsored travel award	2019 Advanced Course in Basic and Clinical Immunology	La Jolla, California (outside of San Diego), USA
2018	Travel award	Korean Cancer Association (KCA)	American Association of Cancer Research – Korean Cancer Association (AACR-KCA) 2018- Precision Medicine in Solid Tumours	Seoul, South Korea.
2018	Dr. G.P. Talwar young scientist award participant	Indian Immunology society (IIS)	Immunocon 2018	THSTI, Delhi, India.
2018	Young researcher award-Best oral presentation (9th)+ Prize money	All India Institute of Medical Sciences, Rishikesh	1 st Natinal Biomedical Research Competetion (NBRCOM)	Rishikesh, Uttrakhand, India.
2018	Young researcher award-Best Poster presentation 2nd) +prize money	All India Institute of Medical Sciences, Rishikesh	1 st Natinal Biomedical Research Competetion (NBRCOM)	Rishikesh, Uttrakhand, India.
2018	Young scientist-Best oral presentation award	International society of Nutraceuticals and chronic diseases	3 rd Internation conference of Nutraceuticals and chronic diseases (INCD. 2018)	Himalayan Institute, Rishikesh, Uttrakhand, India.
2018	AACR-KCA-Travel award	AACR- Korean Cancer Association (KCA)	4 th International cancer conference	Lotte hotel, Seoul, South Korea
2017	Travel award	Indian Immunology Society (IIS)	Annual conference of Indian Immunology Society (IIS)- Immunocon 2017	Ahmedabad, Gujrat, India.

2017	Travel award	European Society for Medical Oncology (ESMO)	ESMO Immuno Oncology Congress-2017	Palexpo Convention Centre, Geneva, Switzerland
2017	Best oral presentation award	Indian Coopreative Oncology Network (ICON)	37 th Indian Coopreative Oncology Network (ICON)	Pride Plaza-Aerocity, New Delhi, India
2017	Best oral presentation award		Second International Conference on Nutraceuticals and Chonic Diseases (INCD – 2017)	Goa, India
2017	Travel award	Asia Pacific Cancer Conference (APCC)	24th Asia Pacific Cancer Conference (APCC 2017)	COEX Convention Centre, Seoul, South Korea
2016	Travel award	Chinese Association of Sciecne and Technology (CAST)	World Life Sciecne Conference (WLSC)- 2016	China National Convention Centre, Beijing, China
2016	Mrs. Geeta Mittal Gold Medal & Book Prize-2015, best basic research (Best thesis award)	All India Institute of Medical Sciences, New Delhi, India.	-	All India Institute of Medical Sciences, New Delhi, India
2015	Dr. Arun Fotedar Memorial Award, best research paper	All India Insitute of Medical Sciences, New Delhi, India	-	All India Insitute of Medical Sciences, New Delhi, India
2015	Travel bursary	Talwar foundation	CRI-CIMT-EATI-AACR Inaugural International Cancer Immunotherapy Conference: Translating Science into Survival 2015, New York, USA	New York, USA
2015	Travel award	Department of Science & Technology (DST), Govt. of India	CRI-CIMT-EATI-AACR Inaugural International Cancer Immunotherapy Conference: Translating Science into Survival	New York, USA
2015	Travel award	Department of Biotechnology (DBT), Govt. of India	Angiogenesis 2015	Orlando, Florida, USA

Conferences and workshops attended

2019	Oral and poster presentation	2 nd National Biomedical Research Competition (NBRCOM) 2019.	a) Poster: Abundance of Treg cells in oral cancer patients and effects of their inhibition on growth of cancer cells b) Cinnamomum zeylanicum inhibits growth of oral cancer cells via MAPkinase-p38 and Dihydrofolate reductase (DHFR) inhibition	Postgraduate Institute of Medical Education and Research (PGIMER), Chandigarh, India.
2019	Oral presentation	4 th International conference on nutraceuticals and chronic diseases (INCD 2019)	Cinnamomum zeylanicum inhibits growth of oral cancer cells via MAPkinase-p38 & Dihydrofolate reductase (DHFR) inhibition	Indian Institute of Technology (IIT)-Guwahati, Assam, India.
2019	Immunology course	Federation of Clinical Immunology Societies (FOCIS)-2019 Advanced Course in Basic and Clinical Immunology	-	La Jolla, California (outside of San Diego), USA
2018	Poster presentation	American Association of Cancer Research – Korean Cancer Association (AACR-KCA) 2018- Precision Medicine in Solid tumours.	Abundance of treg cells in oral cancer patients and effects of their inhibition on growth of cancer cells	Lotte hotel, Seoul, South Korea
2018	Oral presentation	Dr. G.P. Talwar Young scientist award, Indian Immunology Society (IIS)	Abundance of Tregs in oral cancer patients and effects of their inhibition on growth of oral cancer cells.	Translational Health Sciences and Technology Institute, Faridabad, Haryana, India
2018	Poster presentation	1 st National Biomedical Research Competition (NBRCOM)	Anti-tumour effects of Cinnamomum zeylanicum extract (CZE) and its bioactive component cinnamaldehyde (Cinn) on oral cancer cells	All India Institute of Medical Sciences, Rishikesh, Uttarakhand, India
2018	Oral presentation	1 st National Biomedical Research Competition (NBRCOM)	Abundance of regulatory T cells in OSCC patients and effects of their inhibition on oral cancer cells.	All India Institute of Medical Sciences, Rishikesh, Uttarakhand, India
2018	Oral presentation	3 rd International conference on nutraceuticals and chronic diseases (INCD 2018)	Anti-tumour effects of Cinnamomum zeylanicum and its bioactive component, cinnamaldehyde on oral cancer cells	Swami Rama Himalayan University, Dehradun, India
2018	Hands-On Workshop	International workshop on CRISPR/Cas9 based knockout of target genes in mammalian cells	-	South Asian University (SAU), New Delhi, India
2017	Poster	Annual conference of Indian Immunology Society - Immunocon 2017	Thiodigalactoside shows antitumour activity by beta-galactoside-binding protein and regulatory T cells inhibition in oral squamous cell carcinoma	Ahmedabad, Gujarat, India

2018	Workshop	Dr. Shiv Pillai (Professor of Medicine and HST, Harvard Medical School, Ragon Institute of MGH, Harvard and MIT), Dr. Satyajit Rath (Agharkar Chair, Agharkar Research Institute Pune, India) and Dr. Amit Awasthi (THSTI, India)	Cellular and Molecular Immunology	Translational Health Science And Technology Institute (THSTI), Faridabad, Haryana, India.
2017	Poster	ESMO Immuno Oncology Congress 2017	Abundance of treg cells in oral cancer patients and effects of their inhibition on growth of cancer cells	Plaexpo convention centre, Geneva, Switzerland
2017	(i) Oral presentation (ii) E-poster	37 th Indian Cooperative Oncology Network (ICON)	VEGF Overexpression in OSCC patients	Pride Plaza-Aerocity, New Delhi, India
2017	Workshop	International Celiac Disease Symposium, ICDS-2017	A survey course: Update and new concepts in basic and translaional immunology by Dr. Abul K Abbas (University of California, san Fransisco, USA)	Le-Meridien, New Delhi, India
2017	Course	Introductory Course on Basic Immunology	-	All India Institute of Medical Sciences, New Delhi, India.
2017	Oral	Second International Conference on Nutraceuticals and Chonic Diseases (INCD – 2017)	Anti-tumour effects of Garcinol treatment on Oral Squamous Cell Carcinoma cells	Goa, India
2017	Oral	24th Asia Pacific Cancer Conference (APCC 2017)	Disparity in frequency of various subsets of treg cells in peripheral circulation of oral cancer patients and effects of their inhibition on growth of cancer cells	COEX Convention Centre, Seoul, South Korea
2016	Poster	Annual conference of Indian Immunology Society- Immunocon 2016	Thiodigalactoside shows antitumour activity by beta-galactoside-binding protein and regulatory T cells inhibition in oral squamous cell carcinoma	Vishakhapatnam, Andhra Pradesh, India.
2016	Poster	World Life Sciecn Conference (WLSC)- 2016	i. Galectins (1, 3) as plausible tumour markers and suitable targets for chemoprevention of oral squamous cell carcinoma. ii. Phenotypic and functional characterization of regulatory T cells in patients with oral squamous cell carcinoma.	China National Convention Centre, Beijing, China
2016	Poster	12 th International Conference of the Asian Clinical Oncology Society (ACOS); 35 th Annual Convention of Indian Association for Cancer Research (IACR)	Garcinol impedes cell proliferation and promotes apoptosis in oral squamous cell carcinoma via NF-κB and COX-2 inhibition	New Delhi, India

2015	Poster	CRI-CIMT-EATI-AACR Inaugural International Cancer Immunotherapy Conference: Translating Science into Survival	Imbalance in regulatory T (Treg) cells frequency in peripheral circulation of patients with Oral Squamous Cell Carcinoma and their effects on growth of oral cancer	Sheraton New York Times Square Hotel, New York, USA
2014	Poster	SYSICON-2014	Recent advanced in biological sciences	All India Institute of Medical Sciences, New Delhi
2014	Poster	5 th international conference on stem cells and cancer (ICSCC-2014): Proliferation, Differentiation and Apoptosis	Vascular endothelial growth factor: a potential tumor marker for tobacco-related oral squamous cell carcinoma	Jawaharlal Nehru University, New Delhi, India
2013	Poster	40 th Annual Meeting of the Indian Immunology Society (IMMUNOCON 2013)	Beta-galactoside binding protein (Galectin-1) intra oral squamous cell carcinoma patients	University of Delhi, New Delhi, India
2012	Workshop	BD-FACS Academy	Workshop on personal flow cytometer	New Delhi, India
2011	Poster	AACR International Conference on New Horizons in Cancer Research: Biology to Prevention to Therapy	Cloning, expression and partial purification of β -galactoside binding protein and their anti-cancer activity on Oral Cancer cell lines	Gurgaon, New Delhi, india
2010	Poster	30 th Conference of Society of toxicology (India) , STOX 2010	Anti-cancer activity of β -galactoside binding protein (β -GBP/ β -gal) on Oral Cancer cell lines	Jamia Hamdard, New Delhi, India
2008	Participated	International Symposium of Microbiology, Association of Microbiologists of India	-	University of Delhi, New Delhi, India
2007	Participated	National Symposium on immunity to infection, Society of Young Scientists at All India Institute of Medical Sciences	-	All India Institute of Medical Sciences, New Delhi
2006	Participated	conference by Prof. Courvalil from Pasteur Institute, Paris	Combinatorial resistance of bacteria to antibiotics	University of Delhi, New Delhi, India

Additional academic achievements

- ❖ Member of Society for Translational cancer research (TCR) 2018
- ❖ Life member of Indian Society of Histocompatibility and Immunogenetics (ISHI) 2018.
- ❖ Associate member of The cytometry society (TCS), 2018.
- ❖ Member of The society of Nutraceuticals and chronic diseases (INCD) 2016.
- ❖ Life Member of Indian Association of Cancer research (IACR), 2016.
- ❖ Member of The Federation of Clinical Immunology Societies (FOCIS), 2016.
- ❖ Life Member of Indian Immunological Society (IIS), 2013.
- ❖ Associate Member of American Association of Cancer Research (AACR), 2010.
- ❖ Member of Association of Microbiologists of India (IMA), 2009.

- ❖ Qualified online IPR course “Intellectual Property Right and Information Technology in the Internet Age ” (29th Batch), 1st May 2014 to 31st July **2014** from The Indian law institute, Opp. Supreme court of India, Bhagwan Das Road, New Delhi-110001
- ❖ Qualified National Eligibility Test for Junior Research Fellowship jointly organized by Council of Scientific and Industrial Research and University Grants commission (**CSIR-JRF**) in
December 2008,
June 2010 (106th Rank)
December 2010 (280th Rank)
- ❖ **Fellowship** by Delhi University, South Campus during Post Graduation (**2007-2009**)
- ❖ Merit certificate for fetching **Second** position in graduation final year.(**2007**)
- ❖ Presented a **poster** on “Bioterrorism” in annual microbiology fest of Delhi University at SSN College.(**2007**)
- ❖ Merit certificate for fetching **Third** position in graduation IInd year (**2006**)
- ❖ Merit certificate for fetching **Second** position in graduation Previous year (**2005**)
- ❖ Participation in Cancer awareness, prevention cum sponsor program under the aegis of Nation Wide Cancer Control Program of Cancer Aid Society In tune with the guidelines of WHO (Since 2001)
- ❖ Participated in various social works, medical camps, blood donation camps, camps for physically challenged person.
- ❖ Participated in various Moral Education and cultural competitive exams throughout schooling. Class representative – School, Prefect during higher school, Head girl of School.

References

1. **Dr. Satya N. Das (Principal Investigator, Ph.D.)**
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