# <u> Curriculum Vitae</u>

# Arnab Das

Assistant Professor Department of Sports Science & Yoga, Ramakrishna Mission Vivekanada Educational & Research Institute, Belur Math, Howrah, India Former Senior Research Fellow, Sports Authority of India, Bangalore

Mobile No.: +91 8961222659 Email ID: arnabdas.rkmveri@gmail.com; arnab.das384@gmail.com

# Area of Interest & Strength

- Human physiology
- Fundamental and applied sports and exercise physiology
- Sports genetics & molecular biology to create a roadmap for talent identification and development

# **Academic Credentials**

- Ph.D. (Pursuing): The University of Burdwan (Sport & Exercise Physiology)
  SET (2017): WBCSC (Life Sciences)
- RET (2017): The University of Burdwan (Physiology)
- M.Sc. (2015): The University of Burdwan (Physiology with 85.9% marks)
- B.Sc. (2013): The University of Burdwan (Physiology with 65.5% marks)

# Internship

Post M.Sc. CSIR - Indian Institute of Chemical Biology (Neurodegenerative Diseases)

 'A study on DNA damage induced neuronal apoptosis: contribution of a pro-apoptotic protein Bid' under the guidance of Dr. Subhas C. Biswas, Cell Biology & Physiology Division

 Post B.Sc. Indian Association for the Cultivation of Science (IACS), Jadavpur

 on Coagulation Biology under the guidance of Dr. Prosenjit Sen, Biological Chemistry division

# Fellowships / Scholarships

Senior Research Fellow (2018):
 Research Fellow (2016):
 Junior Research Fellow (2016):
 Biotech-RISE fellow (2015):
 SVMCM Scholar (2013):
 Soperts Authority of India, Govt. of India
 Sports Authority of India, Govt. of India
 Department of Science & Technology, Govt. of West Bengal
 Govt. of West Bengal

# **Membership of Professional Bodies**

- 1. Asian Exercise and Sport Science Association (AESSA)
- 2. Association of Physiologist and Pharmacologist of India (APPI)
- 3. Physical Education Foundation of India (PEFI)
- 4. Indian Science Congress Association (IACS)



**Teaching Experience** 

SI. no.	University/ Institute name	Position	Courses	Subjects / papers	Duration
1.	Ramakrishna Mission Vivekanada Educational & Research Institute, Howrah	Assistant Professor	M.Sc. in Sports Science	Physiology, Exercise Physiology	June 2021 to till date
2.	University of Calcutta, Kolkata	Guest Faculty	M.Sc. in Sports Biochemistry	Sports Biochemistry	June 2020 to till date
3.	Manipal College of Health Professions, Manipal, Karnataka	Assistant Professor	M.Sc. in Exercise and Sports Sciences B.Sc. in Exercise and Sports Sciences	Exercise Physiology, Exercise genomics & proteomics, Anti-doping	Feb' 2020 to June 2021
4.	Sharavathi Dental College & Hospital, Shimoga, Karnataka	Lecturer	Bachelor of Dental Surgery (BDS)	Human Physiology	Sep' 2019 to Jan' 2020
5.	Sports Authority of India, Bangalore	Research Fellow	NSNIS Diploma in Sports Coaching & Certificate course in Sports Coaching	System physiology	July, 2016 to June, 2019

#### Work / Research Experience

# 1. Research Fellow & Senior Research Fellow Sports Authority of India, Bangalore (June 2016 - June 2019)

- Worked with various National teams as an Exercise Physiologist i.e. hockey, rowing, volleyball, basketball, swimming, athletics targeting optimum physical fitness and wellness
- Conducted cardio-pulmonary stress tests, metabolic tests, ECG, blood pressure monitoring, aerobic and anaerobic tests of National campers and junior athletes
- *Physiological evaluation of budding athletes periodically*
- Conducted anthropometric assessments
- Operated sophisticated sports science equipment for assessing athletes and patients
- Data collected, analyzed & interpreted
- Prepared exercise physiology test reports with training recommendations
- Discussed test results to the coaches and support staffs
- Attended meetings at SAI regional office as well as head office

# 2. Junior Research Fellow

# Ramakrishna Mission Vivekananda Centenary College, Kolkata

(February 2016 - June 2016)

- Research on Cancer Biology
- Cancer drug discovery from mushrooms
- Handling purchase of equipment, reagents and consumables

# Specific Charges & Responsibilities

#### 1. At Manipal College of Health Professions:

- **M.Sc. Thesis Guidance**: One (ongoing), on 'The association of sports performance, injury risk, and athlete's anxiety with specific genetic polymorphisms: a systematic review'.
- **Prepared syllabus content** for Physiology and Exercise Physiology course as a part of **Outcome based** education (OBE) for B.Sc. & M.Sc. Exercise and Sports Sciences program.

# 2. At Sports Authority of India:

- Charge given to design and submit a project on 'Genetic profiling of Indian athletes' to HRDS, Ministry of Youth Affairs and Sports, Government of India and establish a sports genetics lab, first of its kind in India, at SAI Bangalore.
- Attended HRDS meeting held at Shastri Bhavan, Ministry of Youth Affairs and Sports, Government of India, New Delhi to defend Sports Genetics project. The project was primarily approved and praised by the Technical Committee.
- Handled project fund and equipment procurement for Sports Genetics laboratory.
- Became a **Committee Member** of eight members Committee formulated by Coaching Division, SAI Head Office, New Delhi to **finalize the norms for fitness tests for CBSE & Khelo India** in January 2018.
- Appointed as Dope Control Officer (DCO) by National Anti-Doping Agency (NADA) to collect dope samples during Senior National Weightlifting Championship 2018 and out of the competition as well.
- **Deputed several times to evaluate SAI trainees** practicing at different SAI centers in Andhra Pradesh, Telangana, and Karnataka.

#### Projects

Completed:

2016-2018:	Physiological and biochemical monitoring of Indian rowers in two training phases
2014-2015:	Haematinic Potential of <i>Jussiaea repens</i> L – a Search for Antianaemic Herb

#### **Professional Development Activities**

- 1. Completed six weeks course on 'Introduction to Systematic review and Meta-analysis' from the Johns Hopkins University, US in August 2020.
- Completed courses on 'Anti-Doping e-Learning for Medical Professionals' and 'Anti-Doping e-Learning for Medical Professionals at Major Games' conducted by World Anti-Doping Agency (WADA) in May 2020.
- 3. Completed six weeks course on 'Understanding Clinical Research: Behind the Statistics' from the *University of Cape Town, South Africa* in April 2020.
- Participated in the Orientation course on Doping Control organized by Sports Authority of India (SAI) and National Anti-Doping Agency (NADA) from 5<sup>th</sup>-6<sup>th</sup> December 2017 at Jawaharlal Nehru Stadium, New Delhi.
- Completed UGC funded one-year certificate course in Career Oriented Program on "Tools & Techniques in Bio-technology" during the academic session 2013-2014 from Hooghly Mohsin College, West Bengal.
- Participated in pre-conference workshop on 'Basic techniques of Molecular biology cDNA synthesis, PCR analysis and bioinformatics' organized by Department of Physiology and Pharmacology, Maleka Manipal Medical College and Kasturba Medical College, Manipal on 28<sup>th</sup> November 2018.

#### Presentations

At International Conference:

Oral:

- 1. 'Morpho-physiological profiling and performance of elite rowers at base preparation', Olympics and Indian Values in Global Context 2018 at Delhi University, New Delhi from 25<sup>th</sup> 27<sup>th</sup> September, **2018**.
- 2. 'Changes in physiological and biochemical parameters of national male junior rowers during two phases of training cycle', SAICON 2017 at Jawaharlal Nehru Stadium, New Delhi from 7<sup>th</sup> 9<sup>th</sup> December, **2017**.

Poster:

 'Study of male gonadal activity in mangiferin induced rats compared with crude bark extracts of Mangifera Indica', Health Sciences Innovation Conference and Trade Show at Taj Mahal Palace Hotel, Mumbai, India from 15<sup>th</sup> - 17<sup>th</sup> January, 2015.

At National Conference:

Oral:

- 'Oxygen uptake and heart rate kinetics of Indian elite rowers during 2K rowing' at 64<sup>th</sup> Annual National conference of Associations of Physiologists and Pharmacologists of India 'APPICON 2018' at Manipal, Karnataka on 30<sup>th</sup> November, 2018.
- 'Physical and physiological evaluation of Indian elite rowers' at XXVIII National Conference of Physiological Society of India 'PHYSIOCON 2016' at Midnapore College, Midnapore, West Bengal on 18<sup>th</sup> -20<sup>th</sup> November, 2016.
- 'Effect of turmeric powder supplementation on lipid profile of pre-menopausal and post-menopausal women' at 23<sup>rd</sup> West Bengal State Science and Technology Congress at Presidency University, Kolkata during 28<sup>th</sup> – 29<sup>th</sup> February, 2016.

#### Poster:

- 'Jussiaea repens L induced biomolecular and ultrastructural changes of epididymis in male rats a new frontier of herbal male contraceptive research' in National seminar on Recent Advances in Biotechnology at CSIR- Indian Institute of Chemical Biology, Kolkata on 17<sup>th</sup> April, 2015.
- 2. 'Jussiaea repens as an herbal contraceptive a mating study in male rats', National Seminar on Aquaresources: Care and Concerns at Jadavpur University organized by Social Environmental and Biological Association in collaboration with Zoological Survey of India and West Bengal Biodiversity Board on 14<sup>th</sup> February, 2015.
- 3. 'A comparative study in between mangiferin pure and crude ethanolic extract from Mangifera Indica bark on haematological parameters in male albino rats', 102<sup>nd</sup> Indian Science Congress,2015 (Medical Sciences section) organized by University of Mumbai, India on 3<sup>rd</sup> -7<sup>th</sup> January, 2015.
- 4. 'Effect of Lead Acetate on rat's uterus- an in vitro and in vivo study' in the ICMR-sponsored National Seminar on Community Metabolic Disorder and Dietary Therapeutic Approaches on December 22 & 23, 2014 organized by the Department of Nutrition, Raja N.L.Khan Women's College, Midnapore and stood 1<sup>st</sup> Position in PG section.

# **Publications**

Research article:

 Arnab Das, Malay Mandal, Pralay Majumdar, Alak Kr. Shyamal. Morpho-physiological profile and 2K performance of Indian elite rowers. *Journal of Physical Education and Sport*. 2019; 19(3): 1630-1635. doi: 10.7752/jpes.2019.03236.

- Arnab Das, Malay Mandal, Alak Kr. Shyamal, Pralay Majumdar. Monitoring changes of cardio-respiratory parameters during 2000m rowing performance. International Journal of Exercise Science. 2019; 12(2): 483-490. PMID: 30899347.
- **3.** Pralay Majumdar, **Arnab Das** and Malay Mandal. **Physical and strength variables as a predictor of 2000m rowing ergometer performance in elite rowers**. *Journal of Physical Education and Sport*. **2017**; 17(4): 2502-2507. doi: 10.7752/jpes.2017.04281.
- Arnab Das, Subhasish Ghosal, Indrani Chakraborty and Nirmal Pradhan. Haematinic Potential of Jussiaea repens L A Search for Antianaemic Herb. British Journal of Pharmaceutical Research, 2015; 8(5): 1-11. doi: 10.9734/BJPR/2015/20409.
- Subhasis Ghoshal, Arnab Das, Kajari Bhattacharya, Maitrayee Mondal, Indrani Chakraborty, Nimai Masanta and Nirmal Pradhan. Jussiaea repens as a herbal cotraceptive –a mating study in male rats. Journal of Environment & Sociobiology, 2015; 12(1): 123-131.
- **6.** Purushottam Pramanik, Rohitaswa Chowdhury and **Arnab Das**. **Reference values of body fat indices for semi urban children and adolescent of bengalee ethnicity.** *Global Journal of Biology, Agriculture and health Sciences*, **2014**; 3(4): 19-29.
- 7. Arnab Das, Chaitali Bose, Subhasish Ghosal, Indrani Chakraborty and Nirmal Pradhan\*. Effect of pure mangiferin vis-a-vis crude ethanolic extract from *Mangifera indica* bark on haematological parameters in male albino rats. *World Journal of Pharmaceutical Research*, **2014**; 3(9): 1390-1403.

# Abstract:

- Arnab Das, Usha Sri Kaniganti, Alak Kr. Syamal, Malay Mandal, Pralay Majumdar. Monitoring 3 months periodized training load in Indian National rowers. *Indian Journal of Physiology and Pharmacology*. 2019; 63 (5): 59-60.
- 2. Arnab Das, Malay Mandal, Alak Kr. Syamal, Pralay Majumdar. Oxygen uptake and heart rate kinetics of Indian elite rowers during 2K rowing. Indian Journal of Physiology and Pharmacology. 2018; 62 (5): 88.
- 3. Arnab Das, Malay Mandal, Pralay Majumdar. Changes in physiological and biochemical parameters of national male junior rowers during two phases of training cycle. International conference on Sports Medicine and Sports Science, 1<sup>st</sup> SAICON 2017 at Jawaharlal Nehru Stadium, New Delhi organized by Sports Authority of India from 7<sup>th</sup> 9<sup>th</sup> December, 2017.
- 4. Pralay Majumdar, Malay Mandal, Arnab Das, Manish Singh. Physical and physiological evaluation of Indian elite rowers. XXVIII<sup>th</sup> Annual conference of the Physiological Society of India named PHYSIOCON 2016 at Medinipore College, West Bengal from 18<sup>th</sup> to 20<sup>th</sup> November, 2016.
- Subhasish Ghosal, Nirmal Kr. Pradhan, Arnab Das, Indrani Chakraborty. Jussiaea repens L induced biomolecular and ultrastructural changes of epididymis in male rats – a new frontier of herbal male contraceptive research. National Seminar on Recent Advances in Biotechnology at CSIR- IICB, Kolkata, India on 17<sup>th</sup> April, 2015.
- 6. Arnab Das, Tasneem Khandekar, Chaitali Bose, Subhasish Ghgosal, Indrani Chakraborty, Nirmal Pradhan. Study of male gonadal activity in mangiferin induced rats compared with crude bark extracts of *Mangifera indica*. Health Sciences Innovation Conference and Trade Show at Taj Mahal Palace Hotel, Mumbai, India organized by The Ohio State University and The All India Institute of Medical Sciences on 15<sup>th</sup> -17<sup>th</sup> January, 2015.
- 7. Arnab Das, Nirmal Pradhan. A comparative study in between mangiferin pure and crude ethanolic extract from *Mangifera indica* bark on haematological parameters in male albino rats. 102<sup>nd</sup> Indian Science Congress 2015 (Medical Sciences section) organized by University of Mumbai, India on 3<sup>rd</sup> -7<sup>th</sup> January, 2015.

8. Arnab Das, Indrani Chakraborty, Subhasis Ghoshal, Sk Ibnesahi Mondal, Sanchita Rakhit, Nimai Masanta, Nirmal Pradhan. Effect of lead acetate on rat's uterus- an *in vitro* and *in vivo* study. ICMR-sponsored National Seminar on Community Metabolic Disorder and Dietary Therapeutic Approaches organized by the Department of Nutrition, Raja N.L.Khan Women's College, Midnapore on December 22 & 23, 2014.

### **Extra-Curricular Activities**

- Participated in Essay Competition entitled "Rehabilitating the Diseased Mind and Body" in 102<sup>nd</sup> Indian Science Congress held at University of Mumbai on 3<sup>rd</sup> - 7<sup>th</sup> January, 2015.
- 2. Awarded 'Shilpa Visharad' with 1<sup>st</sup> class in Fine Art in the year 2006-2007 in Art by Sarbabharatiya Sangeet-O-Sanskriti Parishad.

#### **Other Biographical Information**

Date of Birth:	02-08-1992
Nationality:	Indian
Marital status:	Married
Blood Group:	A+

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