Curriculum Vitae

Professor S.L. Kothari, Ph.D., FBS, FISPM, FNAAS, FNASC

Distinguished Professor and Vice-President, Amity Science Technology and Innovation Foundation, Jaipur and Formerly, Dy President and Pro President, Amity University Rajasthan (**Formerly**, Dean Faculty of Science and Director, Centre for Converging Technologies (CCT), Formerly Professor and Head Department of Botany and Director, PG School of Life Sciences and Coordinator, PG Course in Biotechnology Formerly, Coordinator, UGC-UPE, DST-PURSE,

DST-FIST, DBT-IPLS Programmes University of Rajasthan, Jaipur)

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Jaipur 302 017

Date & Place of Birth: 25th July 1954, Chandras (Bhilwara), Rajasthan-India

Nationality: Indian

Marital status: Married (Two daughters)

Education:

- Matriculation and Higher Secondary with First division
- B.Sc. First div., Botany, Chemistry, Zoology, Univ. Udaipur, 1974
- M.Sc. First div., First rank, Botany, University of Udaipur, 1976
- Ph.D. University of Rajasthan, 1984 with 6 papers in SCI-IF Journals

Academic achievements:

- Fellow, National Academy of Sciences, 1997
- Fellow National Academy of Agricultural Sciences, 2008
- Fellow, Indian Botanical Society, 1992
- Fellow, International Society of Plant Morphologists, 2014
- Fulbright Scholar, University of Illinois, USA, 1983-1984
- Commonwealth Academic Staff Fellow, University of Nottingham, UK, 1989-90
- Rockefeller Biotechnology career Fellow, University of Nottingham, UK, 1991-96
- Visiting Foreign Research Fellow, University of Tsukuba, Japan, 2003-04
- Adjunct Professor, RMIT University, Melbourne, Australia, 2008-2011
- No. of Ph.D. supervised: 52
- Research Papers Published: 190 (117 in *SCI* impact factor Journals)
- Book Chapters: 40
- Research Projects completed: 18
- H index: 34 and Scopus and SCI H index: 24; Total Citations: >4000
- Nahar Samman Award, Rajasthani Welfare Association, Mumbai, 1997



Academic administration:

- Vice-President, Amity Science Technology & Innovation Foundation, Jaipur
- Dy President, Amity University Rajasthan, Jaipur
- Pro President, Amity University Rajasthan, Jaipur
- Convener, Deans' Committee to officiate as VC, Univ. Rajasthan, Jaipur
- Member Syndicate (two terms), University of Rajasthan, 2005-2011
- Dean, Faculty of Science, University of Rajasthan, 2008-2011
- Director, Centre for Converging Technologies, 2007-11
- Director, PG School of Life Sciences, University of Rajasthan, 2005-2008
- Head, Department of Botany, University of Rajasthan, 2003, 2010
- Coordinator, PG Course in Biotechnology, 2003, 2010
- Coordinator, Bioinformatics, 2007-12
- Head, Department of Botany, MDS University, Ajmer, 1995-96
- Convener Boards of Studies/COC in Biotechnology, Botany and Converging Technologies of University of Rajasthan/MDS University
- Coordinator PURSE scheme of DST, 2008-2011
- Coordinator, DBT-UR-IPLS Scheme, 2010-
- Coordinator, UGC, DRS-Phase-I, 2009-14
- Chaired several committees of the University
- Expert in selection committees of other Universities, RPSC and the UPSC
- Organized several national level conferences and workshops

Experience of Regulatory Bodies:

- Coordinated the preparation of all the administrative and documentation work and provided the essential leadership in Organizing the NAAC accreditation of the Amity University Rajasthan Jaipur in 2017 with a B++ ranking
- Coordinated the NIRF ranking work of Amity University Rajasthan and the University was ranked amongst the top 200
- Experience of UGC visits and also the NAAC accreditation work at the University of Rajasthan, Jaipur
- All other Scientific bodies such as IBSC, IAEC, IHEC were constituted under my leadership
- Leadership experience of BCI, RCI, CoA, UGC at the University level
- Coordinator of various programmes of DST, DBT, UGC, ICAR, ICMR at the University level

Academic Innovations and Grant Applications:

Conceptualized and established the Centre for Converging Technologies (CCT) at the University of Rajasthan in 2006 of which I was the Additional Director (2006-07) and Director from 2007-2011. The CCT is first of its kind centre in the country which imparts 5 year integrated dual degree (B.Tech.-M.Tech.) course in four different streams of converging technologies (Nano-Bio-Info-Cogno). This

centre was inaugurated in 2009 by the Hon'ble Chief-Minister and Hon'ble Governor of Rajasthan and both had very high opinions about the course and the centre. This centre has attracted funding of Rs. 20 crores. The centre boasts of the modern facilities and the training it imparts and research activities that it had undertaken. Government of Rajasthan has identified CCT for establishment of Centre of advanced research in Nanotechnology with proposed grant of Rs. 13 crores. The proposal was coordinated and submitted under my Directorship. The passed out students have found excellent placements in India and abroad

- Coordinator for the PURSE Programme supported (Rs. 6 cr.) by the DST, Govt.
 of India. This programme was sanctioned on the basis of H-index of the
 University. My H-index is highest in the Life Science Faculty. Programme was
 presented by me along with the V.C. to the DST, New Delhi. Second phase of
 PURSE programme for Rs. 32 cr. was also submitted to DST under my
 Coordinator ship
- Coordinator for the UPE (University with Potential for Excellence) scheme submitted by the University to the UGC, New Delhi. I coordinated the submission of this programme to UGC in a record time. UGC has sanctioned Rs. 50 Crore under this programme. I worked as the Coordinator of this programme till my retirement in July 2014.
- Coordinator for the Interdisciplinary programme for Life Sciences (IPLS) sanctioned by the DBT, New Delhi. Rs. 10 crores have been sanctioned for research and education in Life sciences. The programme was submitted and presented by me along with the V.C. to DBT committee during their visit to the University and later in New Delhi.
- FIST Programme was presented by me twice to DST expert committee, New Delhi and Bangalore and received the grant both the times totaling to Rs. 1crore for equipment and infrastructure development of the Department of Botany.
- DRS phase-1 programme of the department of Botany was presented by me before UGC, New Delhi and a grant of about Rs. 65 Lakhs was sanctioned. I was Coordinator for this programme also.
- Bioinformatics Centre at the University of Rajasthan was established in 2007 with a grant from DBT, New Delhi. The programme was formulated and presented by me. I was Coordinator for this programme from 2007 to 2013
- 18 Major R&D projects were sanctioned to me as Principal Investigator/Coordinator by different funding agencies. Under these programmes 42 candidates have been awarded Ph.D. degree under my supervision in the last 30 years.
- I was awarded Fulbright Scholarship of the US Govt., Commonwealth Academic Staff Fellowship by the ACU and UGC, Rockefeller Biotechnology Career Fellowship by the Rockefeller Foundation, USA, INSA-

DFG Fellowship by the Govt. of India and Germany. These fellowship awards were fully funded for my post doctoral research work abroad.

- Two women Scientists funded by the DST, New Delhi and 55 Ph.D. scholars and Post-doctoral fellows including 2 Technical Officers and One D.S. Kothari Post doctoral Fellow all funded by the UGC/DBT/CSIR/ICAR/ICMR worked with me in the last about 30 years.
- I was offered and worked as the Visiting Foreign Research Fellow (equivalent to Sr. Professor) position by the University of Tsukuba, Japan in 2003-04. The programme was fully supported by the University of Tsukuba. It is one of the most prestigious programmes of the Japanese Universities where in they invite faculty from abroad including USA and European countries.

Intellectual property, technological innovations, new products:

<u>Concept</u>: Professor Kothari's research group has studied experimental morphogenesis and developmental aspects of somatic embryogenesis and shoots bud development in great depth. A novel pathway of plant regeneration through the enlargement of apical domes and differentiation of meristematic nodules and shoot buds on the entire surface of the enlarged domes and meristematic nodules was described in finger millet. Elucidation of occurrence of both somatic embryogenesis and shoot bud morphogenesis in long-term maintained callus cultures of wheat and expression of totipotency of coleoptiles in wheat and rice were new findings from my laboratory. Micropropagation protocols for ornamental *Dianthus caryophyllus* and *Tagetes erecta* were developed.

<u>Process</u>: Work on use of protoplast and *Agrobacterium* in transfer of gene in rice and inheritance of transgene in seed progeny were pioneered. Protoplast culture and fusion of protoplasts; recombination of mitochondrial genomes in somatic hybrids were the pioneering works reported by us. The process for green synthesis of silver and other nanoparticles was developed using papaya fruit extract and other plants and microbes.

<u>Product:</u> Somaclonal variations produced in millets have been put to use in variety development in foxtail millet at the all India coordinated programme lead by Dr. A Seetharam of UAS, GKVK Bangalore. Extracts from medicinal plants were tested against pathogenic bacteria.

Technologies: Micropropagation protocols were developed for Carnations, African and French marigolds, Gerbera, Eclipta alba, Withania somnifera, Withania coagulans, Helianthus annuus, Capparis decidua, Crataeva adansonii, Cleome viscosa, Jatropha curcus, Trachyspermum ammi, Stevia rebaudiana. We have developed plant regeneration protocols in Indian varieties of wheat, rice, barley, Sorghum, Pennisetum, Eleusine, Paspalum, Panicum, Setaria and Capsicum. The regeneration protocols were used for developing transgenic rice, barley and finger millet using Agrobacterium-mediated and particle gun mediated gene transfer methods.

Position held	Institution	From To
	itions held Abroad	
Fulbright Scholar	University of Illinois, USA	1983 – 1984
Commonwealth Acad. Staff Fellow	 University of Nottingham, UK 	1989 – 1990
Rockefeller Biotech. Career Fellov	v University of Nottingham, UK	1991 – 1996
		(3 months/yea
Professor	University of Tsukuba, Japan	2003 – 2004
Adjunct Professor	RMIT University, Melbourne, Australia	2008 - 201
INSA Visiting Fellow	IPK, Gatersleben, Germany	1997, 2012
-		(4 weeks/yea
<u>Pos</u>	<u>itions held at the University of Rajasthan,</u>	<u>Jaipur</u>
Assistant Professor	Department of Botany	1979 – 198
Associate Professor	Department of Botany	1989 – 200
Professor	Department of Botany	2001 – date
Dean	Faculty of Science	2008 - 201
Director	Centre for Converging Technologies	2007 - 201
Hon. Director	PG School of Life Science	2005 - 200
Head	Department of Botany	2003, 201
Addl. Director	Centre for Converging Technologies	2006 - 200
Member	Syndicate	2005 - 201
Coordinator	DST-PURSE Programme	2008 - 201
Coordinator	DBT-BIF Programme	2007 – 201
Coordinator	DBT-IPLS Programme	2010 - 201
Coordinator	DST-FIST Programme	2003, 201
Coordinator	UGC-SAP	2009 - 201
Coordinator	UGC-UPE Programme	2008 - 201
Othe	er Positions held	
JRF, CSIR	University of Udaipur	1976-1977
Lecturer in Botany	Directorate of College Education	1977 – 1979
Professor and Head	Dept. of Botany, MDS University, Ajmer	1995 – 199