

## Detailed Bio data

### 1. Personal Details

Name: **Anil Kumar**

Nationality: **Indian**

Date of Birth: **18/09/80**      Gender (M/F): **Male**

Designation: **Assistant Professor**

Address: Assistant Professor, Department of Bio and Nano Technology, **Guru Jambheshwar University of science Technology, Hisar (Haryana) 125001**

City: **Hisar**    PIN: **125001**,    State: **Haryana**    Department: **Bio and Nano Technology**

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Residential Address: **H.No.-80-E, Saket Extension, Hisar, Haryana**

2. Educational Qualifications (Starting from Graduation onwards): **M. Sc, Ph. D**

3. Ph. D thesis title: **Molecular characterization of major candidate genes associated with milk fat percentage in Indian buffalo**

Guide Name: **Dr. Vinod Chhokar**

Institute/Organization/University: **Guru Jambheshwar University of science Technology, Hisar (Haryana) 125001**

Date of Registration: **February 2007**

Year of Award: **December 2012**

4.      **A. Details of professional training and research experience, specifying period: 12 years**

**B. Details of employment (past & present): Working as Assistant Professor since October 2005**

**List of Projects**

<b>S.No.</b>	<b>Title of Project</b>	<b>Duration</b>	<b>Funding Agency</b>	<b>Amount</b>
1.	Molecular characterization and genetic divergence in chickpea ( <i>Cicer arietinum</i> L) using molecular markers [As Co-PI]	3 years	HSCS&T, Chandigarh	7.55 Lacs
2.	Molecular characterization of major candidate genes associated with milk quality in Egyptian and Indian buffaloes [As Co-PI]	3 years	DST, Govt of India	6.6 Lacs
3.	Molecular characterization of major candidate genes associated with milk fat percentage in Indian buffalo	3 years	UGC, New Delhi	10.05 Lacs
4.	Production, extraction and purification of pigments isolated from bacteria and their application	1 year	UGC, New Delhi	Minor Project
5.	Isolation, Screening and characterization of Monocrotophos degrading Genes in bacterial isolates.	1 year	UGC, New Delhi	Minor Project
6.	Synthesis of nanoparticles using citrus fruit extract and evaluation of its antimicrobial, antioxidant and anti-cancerous activity	2 years	DST-PURSE	1 Lac
7	Isolation, screening and optimization of Serratiopeptidase enzyme producing bacteria	1 year	University Grant	1,24,000

# LIST OF PUBLICATIONS

## BOOK

Chhokar V and **Kumar A** (2009). A Text Book of Immunology, Arihant Publishers, New Delhi

## BOOK CHAPTER

- **Anil Kumar** “**Proteins of the immune system**” In Pan Stanford Publishing, 2018, USA
- Prachi, **Anil Kumar**, Vikash Beniwal, Vinod Chhokar "**Bioremediation of Tannery Wastewater**" in "Advances in Environmental Biotechnology" published by Springer Publishers, USA.
- Pradeep Dhanwal, **Anil Kumar**, Shruti Dudeja "**Recent Advances in Phytoremediation Technology**" in "Advances in Environmental Biotechnology" published by Springer Publishers, USA.

## LIST OF RESEARCH ARTICLES

1. TPK S Kumar, V Beniwal, N Kumar, **A Kumar**, V Chhokar (2015) Biochemical characterization of immobilized tannase from *Aspergillus awamori*. *Biocatalysis and Agricultural Biotechnology* 4 (3), 398-403
2. V Chhokar, V Beniwal, H Aggarwal, **A Kumar** (2015) Lipid content and fatty acid change in the developing silique wall of mustard (*Brassica juncea* L.) *Biocatalysis and Agricultural Biotechnology* 4 (1), 122-125
3. Mukesh R. Jangra , **Anil Kumar** , Ashwin A. Raut , Anamika Mishra and Vinod Chhokar (2015) Partial characterization of exon 5 of Stearoyl-CoA Desaturase (SCD1) gene in buffalo using PCR-RFLP *Progressive Research – An International Journal* Volume 10 (Special-IV) : 1987-1989
4. Aggarwal H, Rao A, **Kumar A**, Singh J, Rana J S , Naik P K , Chhokar V. (2014) Genotyping with ISSR markers resolves considerable genetic diversity in Chickpea (*Cicer arietinum* L.). *Turkish Journal of Botany* 39 (2) .[ Impact Factor 1.60 ]
5. Kumar M, Chhokar V, **Kumar A**, Sarla, Beniwal V and Aggarwal H (2014). A comparative study of genetic diversity in chickpea based upon touchdown and non-touchdown PCR using ISSR Markers. *Chiang Mai J. Sci.* ; 41(X) : 1-9.[ Impact Factor 0.418 ]
6. Jha, Sunena., Dinanath, Mishra., Singh, Shailendra. K. and **Anil. Kumar** (2013) Current Scope of Nanomedicines: An Overview. *Current Trends in Biotechnology and Chemical Research*. pISSN 2249-4073; eISSN 2321-0265

7. Beniwal, V, **Kumar A**, Sharma J, Chhokar V. (2013). Recent advances in industrial applications of tannases- A Review. *Recent Patents on Biotechnology*. 7 : 228-233 [ Impact Factor 1.95 ] [ISSN: 1872-2083]
8. Sardul Singh Sandhu, Anil K. Sharma, Vikas Beniwal, Gunjan Goel, Priya Batra, **Anil Kumar**, Sundeep Jaglan, A. K. Sharma, Sonal Malhotra (2012) Myco-Biocontrol of Insect Pests: Factors Involved, Mechanism, and Regulation. *Journal of Pathogens* Volume 2012 (2012)
9. Vikas Beniwal, **Anil Kumar**, Jitender Sharma and Vinod Chhokar (2013) Recent Advances in Industrial Application of Tannases: A Review. *Recent Patents on Biotechnology*, 7, 228-233
10. Beniwal, V, **Kumar A**, Goel G, Chhokar V. (2013). A novel low molecular weight acidothermophilic tannase from *Enterobacter cloacae* MTCC 9125. *Biocatalysis and Agricultural Biotechnology*. 2(2): 132 – 137
11. **Anil Kumar**, Vikas Beniwal, Sachin K Samuchiwal, Vinod Chhokar, Sheo N Kala, Ashwin A Raut, Anamika Mishra(2012) Expression of Pluripotency Determining Stem Cell Marker Sox-2 in Umbilical Cord Blood of Buffalo. *J. Anim. Sci. Adv.*, 2(10): 841-846
12. Beniwal, V, **Kumar A**, Goel G, Chhokar V. (2013). A novel low molecular weight acidothermophilic tannase from *Enterobacter cloacae* MTCC 9125. *Biocatalysis and Agricultural Biotechnology*. 2(2): 132 – 137 [ ISSN: 1878-8181]
13. Raut, Ashwin A., **Kumar, Anil.**, Kala, Sheo N., Chhokar, Vinod., Rana, Neeraj., Beniwal, Vikas., Jaglan, Sundeep., Samuchiwal, Sachin K., Singh, Jitender K., Mishra, Anamika. (2012). Identification of novel single nucleotide polymorphisms in the *DGAT1* gene of buffaloes by PCR-SSCP. *Genetics and Molecular Biology*, 35(3): 610-613.
14. Beniwal,V., Yogi, R., Goel, G., **Kumar, A.** and Chhokar, V.(2012). Production of tannase through solid state fermentation using Indian Rosewood (*Dalbergia sissoo*) sawdust: a timber industry waste. *Annals of Microbiology*.63(2):583-590
15. **Kumar, A.**, Kumar, R., Beniwal, V., Kala, S. N., Mishra, A., Raut, A.A., Naik, P. K. and Chhokar, V. (2012). Molecular differentiation of Peroxysome proliferator activated receptor coactivator-1 among different breeds of *Bubalus bubalis*, *Bioinformation*, 8(13):600 – 606.
16. **Kumar, A.**, Kumar, R., Beniwal, V., Kala, S. N., Mishra, A., Raut, A.A., Naik, P. K. and Chhokar, V. (2012). Molecular differentiation of Glycerol-3-phosphate acyltransferase (Mitochondrial) among different breeds of *Bubalus bubalis.*, *Int J Pharm Bio Sci* 3(4): 685 – 694

17. Aggarwal, H., Rao, A., Rana, J.S., Singh, J., **Kumar A.**, and Chhokar, V. Beniwal V. (2011) Inter Simple Sequence Repeats reveals significant genetic diversity in chickpea (*Cicer arietinum* L.). *Journal Plant Sciences* **6**(5); 202-212. [ISSN: 1816-4951]
18. Chhokar V, Seema, Beniwal V, Salar R K, Nehra K S, **Kumar A** and Rana J S (2010). Purification and characterization of extracellular tannin acyl hydrolase from *Aspergillus heteromorphus* mtcc 8818. *Biotechnology and Bioprocess Engineering*. **15** (5) :793-799.[ Impact Factor 1.28] [ISSN 1226-8372]
19. Chhokar V, Katiyar S, Beniwal V, **Kumar A.** and Rana J.S. (2008). Immobilization of tannase for commercial use in food industries. *Asian Journal of Bioscience* **3** (2) : 275-278 [ISSN:0973-4899]
20. Chhokar, V., Beniwal, V., **Kumar, A.** and Rana J.S. (2008). Lipid content and fatty acids composition of mustard (*Brassica juncea* L.). *The Asian Journal of Experimental Chemistry*. **3**:6-9
21. Chhokar, V., Katiyar, S., Beniwal, V., **Kumar, A.** and Rana J.S. (2008). Immobilization of tannase for commercial use in food industries. *Asian Journal of Bioscience* **3** (2) : 275-278
22. Mukesh R jangra, **Anil Kumar**, Ashwin A Raut, Anamika Mishra and Vinod Chhokar (2015) Partial characterization of Exon 5 of Stearoyl-Coa Desaturase (SCD) gene in buffalo using PCR-RFLP. *Progressive research- an International Journal* 10-1987-89
23. Sunena, Dinanath Mishra, Shailendra Kumar Singh, **Anil Kumar** (2016) Development and characterization of zolmitriptan thiolated chitosan nanoparticles. *The Pharma Innovation*
24. Sunena, Dinanath Mishra, Shailendra Kumar Singh, **Anil Kumar** (2016) Synthesis, Characterization and Ex vivo Evaluation of Mucoadhesive potential of Thiolated chitosan. *The International journal of Pharma Professional's Research*
25. Mor. S., Nagoria, S., Kumar A., **Kumar A** Kaushik , C.P (2016)"QSAR studies and design of some tetracyclic 1,4-benzothiazines as antimicrobial agents" *Journal of Drug research*
26. Sunena, Dinanath Mishra, Shailendra Kumar Singh, **Anil Kumar** (2016) Formulation and optimization of mucoadhesive Galantamine loaded nanoparticles. *Der pharmaceutica letter*
27. Manju, **Anil Kumar**, Mukesh Kumar and Narsi R. Bishnoi (2016) Kinetic Study of Methylene Blue Removal on Immobilized Biomass Left after Enzyme Production Using Response Surface Methodology. *Journal of Applied Life Sciences International* **6**(3): 1-9,
- 28 **Anil Kumar**, Vinod Chhokar, Ravinder Kumar, Himanshu Aggarwal and Vikas Beniwal (2016) Molecular characterization of acyl CoA: Diacylglycerol acyl transferase (DGAT1) in sheep and its comparison with other ruminants. *American. Journal of Biochemistry and Molecular Biology*

- 29 **Anil Kumar** (2016) Antimicrobial activity of ethno-medicinal plants against cariogenic pathogens. *Journal of medicinal plant studies* 4(3):283-290
- 30 P Yadav, K Lal, P Rani, S Mor, A Kumar, **A Kumar** (2017) Efficient synthesis and antimicrobial evaluation of 2-((1-substituted-1H-1, 2, 3-triazol-4-yl)-1-naphthaldehydes and their oxime derivatives. *Medicinal Chemistry Research* 26 (7), 1469-1480
- 31 S Monga, P Dhanwal, R Kumar, **A Kumar**, V Chhokar (2017) Pharmacological and physico-chemical properties of Tulsi (*Ocimum gratissimum* L.): An updated review. *The Pharma Innovation* 6 (4, Part C), 181
- 32 RK Pinki Yadav, Kashmiri Lal, Lokesh Kumar, Ashwani Kumar, **Anil Kumar**, Avijit (2018) Synthesis, crystal structure and antimicrobial potential of some fluorinated chalcone-1,2,3-triazole conjugates. *European Journal of Medicinal Chemistry* 155, 263-74
- 33 **Anil Kumar** VC Pragati Choudhri, Muniya Rani, Rajender S. Sangwan, Ravinder Kumar (2018) De novo sequencing, assembly and characterisation of Aloe vera transcriptome and analysis of expression profiles of genes related to saponin and anthraquinone metabolism. *BMC Genomics* 19, 427
- 34 **Anil Kumar** P Dhanwal, A Kumar, S Dudeja, H Badgujar, R Chauhan (2018) Biosorption of heavy metals from aqueous solution by bacteria isolated from contaminated soil. *Water Environment Research*
- 35 **Anil Kumar** VB P Chaudhary, V Chhokar, P Choudhary (2018) Optimization of chromium and tannic acid bioremediation by *Aspergillus niveus* using Plackett–Burman design and response surface methodology. *AMB Express* 7 (1), 201
- 36 AK Jaya Devi, Manju Yadav, **Anil Kumar** (2018) Synthesis, characterization, biological activity and QSAR studies of transition metal complexes derived from piperonylamine schiff bases. *Chemical Papers*
- 37 KA Lal K, Kumar L, **Kumar A** (2018) Oxazolone-1, 2, 3-Triazole Hybrids: Design, Synthesis and Antimicrobial Evaluation. *Curr Top Med Chem.* 18 (17), 1506-1513.
- 38 Satbir Mor, Suchita Sindhu, Savita Nagoria, Mohini Khatri, Prabha Garg, Hardeep Sandhu, **Anil Kumar** (2019) Synthesis, Biological Evaluation, and Molecular Docking Studies of Some N-thiazolyl Hydrazones and Indenopyrazolones. *Journal of Heterocyclic Chemistry* 56 (5), 1622-33
- 39 VC P Chaudhary, V Beniwal, R Kaur, R Kumar, **A Kumar** (2019) Efficacy of *Aspergillus fumigatus* MCC 1175 for Bioremediation of Tannery Wastewater. *CLEAN–Soil, Air, Water* 47 (6)
- 40 B Hemlata, **Kumar A**, Chhokar V, Beniwal V, Dhiman A, Sweeta and Chauhan R (2019) Optimization of *Pseudomonas aeruginosa* for chlorpyrifos degradation using Response Surface Methodology. *Journal of Microbiology and Modern Techniques*

- 41 L Kumar, K Lal, A Kumar, AK Paul, **A Kumar** (2021) Pyrazoline tethered 1, 2, 3-triazoles: Synthesis, antimicrobial evaluation and in silico studies. *Journal of Molecular Structure*, 131154
- 42 R Kumar, RK Salar, PK Naik, M Yadav, **A Kumar**, A Kumar, R Yogi, (2021) Elucidation of genetic diversity and population structure of sixty genotypes of Aloe vera using AFLP markers. *South African Journal of Botany*
- 43 S Dudeja, V Chhokar, V Beniwal, H Badgujjar, R Chauhan, S Soni **A Kumar** (2021) Optimization and Production of antimicrobial compounds by *Aspergillus flavus* MTCC 13062 and its Synergistic studies. *Biocatalysis and Agricultural Biotechnology*, 102065
- 44 L Deswal, V Verma, D Kumar, A Kumar, M Bhatia, Y Deswal, **A Kumar** (2021) Development of novel anti-infective and antioxidant azole hybrids using a wet and dry approach. *Future Medicinal Chemistry* 13 (11), 975-991
- 45 **A Kumar**, N Luhach, R Chauhan, H Badgujjar, S Soni, V Chhokar (2021) Synthesis and Characterization of Silver Nanoparticles Using Citrus Fruit Juice for Evaluation of Anticancer Activity Against Colo-205 Cell Lines. *Journal of Nanoscience and Nanotechnology* 21 (6), 3580-3587
- 46 P Chaudhary, V Beniwal, A Umar, R Kumar, P Sharma, **A Kumar** (2021) In vitro microcosm of co-cultured bacteria for the removal of hexavalent Cr and tannic acid: A mechanistic approach to study the impact of operational parameters. *Ecotoxicology and Environmental Safety* 208, 111484
- 47 S Dudeja, V Chhokar, H Badgujjar, R Chauhan, S Soni, V Beniwal **A Kumar** (2021) Isolation and screening of antibiotic producing fungi from solid-state waste. *Polymorphism* 4, 59-71
- 48 **Anil K Nisha Poonia**, Kashmiri Lal, Poonam Rani, Ashwani Kumar (2021) Design, synthesis, antimicrobial evaluation and docking studies of urea-triazole-amide hybrids. *Journal of Molecular Structure*
- 49 VB Hemlata, **Anil Kumar**, Vinod Chhokar (2021) Optimization of physical parameters for chlorpyrifos degrading bacterial strain using Box-Behnken Model. *Indian Journal Environmental Protection* 40 (9), 985-990