

# Indian Journal of Experimental Biology

<http://www.niscair.res.in>; <http://nopr.niscair.res.in>

**VOLUME 56**

**NUMBER 4**

**APRIL 2018**

CODEN: IJEB (A6) 56 (4) 215-288 (2018)

ISSN: 0019-5189 (Print); 0975-1009 (Online)

## CONTENTS

### Papers

- Anticancer activity of HMGA1 promoter targeting triplex forming oligonucleotide in HeLa cell line 219  
Md. Zahid Akhter & Moganty R Rajeswari\*
- Biochemical assessment of flavonoid rich methanolic extract from *Oxalis corniculata* (oxalidaceae) and its role in food preservation, antimicrobial and antioxidative paradigms using *in situ* and *in vitro* models 230  
Sayani Mukherjee, Sudin Pal, Rajarshi Chakraborty, Hemanta Koley & Pubali Dhar\*
- Screening of biologically active microbial strains having therapeutic applications 244  
Akanksha Srivastava, Jyoti Verma, Harshita Singh, Ram Niwas, Kumari Vibha, Mamta Gangwar, Amreen Khan, CKM Tripathi & Vineeta Singh\*
- Analysis of chemical composition of *Cupressus torulosa* (D. Don) essential oil and bioautography guided evaluation of its antimicrobial fraction 252  
Sahil Gupta, Madhulika Bhagat\*, Rasleen Sudan, Sangeeta Rajput & Kusum Rajput
- Mass multiplication of arbuscular mycorrhizal fungi associated with some leguminous plants: an ecofriendly approach 258  
Nisha Kadian, Kuldeep Yadav & Ashok Aggarwal\*
- Plant growth promoting activities of rhizosphere bacteria from two ferns *Pronephrium nudatum* (Roxb.) Holttum. and *Bolbitis heteroclita* (C. Presl) Ching: an analysis of fern-rhizosphere relationship 267  
Aniruddha Sen, MK Bhattacharya\*, HK Prasad & GD Sharma
- Note**
- Production, purification and kinetics of chitinase of *Stenotrophomonas maltophilia* isolated from rhizospheric soil 274  
Sohel S Shaikh, Sonal J Wani, RZ Sayyed\*, Rishu Thakur & Arvind Gulati

*Cont.*

'Indigenous' and 'Ethanol Vortex' ELISA kits for diagnosis of *Mycobacterium avium* subsp. *paratuberculosis* infection in cattle: Is there a 'globally relevant kit' in the 'Reverse Ice-burg' environment? 279

Kundan Kumar Chaubey, Shoor Vir Singh\* & Ashok Kumar Bhatia

Instructions to Authors 287

\*Author for correspondence

### Author Index

Aggarwal A	258	Khan A	244	Sharma GD	267
Akhter MZ	219	Koley H	230	Singh H	244
		Mukherjee S	230	Singh SV	279
Bhagat M	252			Singh V	244
Bhatia AK	279	Niwas R	244	Srivastava A	244
Bhattacharya MK	267			Sudan R	252
Chakraborty R	230	Pal S	230		
Chaubey KK	279	Prasad HK	267	Thakur R	274
				Tripathi CKM	244
Dhar P	230	Rajeswari MR	219	Verma J	244
Gangwar M	244	Rajput K	252	Vibha K	244
Gulati A	274	Rajput S	252		
Gupta S	252	Sayyed RZ	274	Wani SJ	274
		Sen A	267	Yadav K	258
Kadian N	258	Shaikh SS	274		

### Keyword Index

<i>Acaulospora laevis</i>	258	Energetic	219	MAP infection	279
Actinomycetes	244,267	Enzyme kinetics	274	Mass multiplication	258
<i>Alternaria alternata</i>	252	Essential oil	252	Metal tolerance capacity	267
AM fungi	258	EV-ELISA kit	279		
Ammonia producing capacity	267			PGPR	267
Antagonistic activity	267	Ferulic acid	230	Phosphate solubilization activity	267
Antifungal	252	Flavonoid	230	$\alpha$ -Pinene	252
Antimicrobial	230,252	Food preservation	230	<i>Pseudomonas</i> sp.	267
		Fungal pathogens	252		
<i>Bacillus</i> spp.	267	GC-MS	252	Rhizosphere	274
<i>Bipolaris specifera</i>	252	<i>Glomus mosseae</i>	258	ROS	230
		Glutaminase	244	Rutin	230
Cancer	219	Heparinase	244		
3-Carene	252	Himalayan cypress	252	SDS-PAGE	274
Cattle	279	HMGAI expression	219	Siderophore production ability	267
Chickpea seed husk	258	Hydroxybenzoic acid	230	Soil isolates	244
Chitinase	244,274	i-ELISA kit	279	Storage	230
Cholesterol oxidase	244	Indian Bison type strain	279	<i>Streptomyces</i>	244
Creeping woodsorrel	230	Indole acetic acid (IAA)	267		
<i>Cupressus</i>	252	Johne's disease	279	Triplex forming oligonucleotide	219
<i>Curvularia lunata</i>	252	'Linda' strain	279		
DNA triplex	219				