BARD Approved Projects
Award Year 2018

27/05/2018

IS-5060-18 **Dual mode detection of heavy metal pollutants: A real-time biosensing method**

Agricultural Innovation & Engi

App. Duration: 1 year

* Shtenberg, G.	ARO, Min. Ag.	
Minteer, S.D.	U Utah	UT

IS-5066-18R 5004 **Identification of virulence mechanisms in mammary pathogenic *Mycoplasma bovis* using unbiased whole genome random mutagenesis**

Animal Health

App. Duration: 3 years

Lysnyansky, I.	Isr. Vet. Inst.	
Almeida, R.	U Tennessee, Knoxville	TN
Shpigel, N.	Hebrew U	
Kerro-Dego, O.	U Tennessee, Knoxville	TN

IS-5067-18 **Treatment and prevention of mastitis in dairy cows using cell based therapy**

Animal Health

App. Duration: 1 year

* Schlesinger, S.	Hebrew U	
Lippolis, J.D.	USDA, ARS	IA
Shpigel, N.	Hebrew U	

US-5074-18CR 4113 4992 **Modulating intestinal cellular maturation and differentiation in broilers by in ovo feeding**

Animal Production

App. Duration: 3 years

Wong, E.A.	Virginia Tech	VA
Uni, Z.	Hebrew U	

IS-5077-18R 5003 **The regulation of size related division of labor in a key pollinator and its impact on crop pollination efficacy**

Animal Production

App. Duration: 3 years

Bloch, G.	Hebrew U	
* Woodard, H.S.	UC, Riverside	CA

IS-5078-18 **Characterization of the architecture of hygienic behavior of honeybees to enable breeding for improved honeybee health**

Animal Production

App. Duration: 3 years

Soroker, V.	ARO, Min. Ag.	
Rueppell, O.	U NC Greensboro	NC

IS-5085-18 **Targets for CRISPR/Cas9-mediated gene drive in *Bemisia tabaci*: A strategy for controlling a global pest**

Crop Health

App. Duration: 3 years

Morin, S.	Hebrew U	
Walling, L.L.	UC, Riverside	CA
Atkinson, P.W.	UC, Riverside	CA
Li, J.	UC, Riverside	CA
Tabashnik, B.E.	U Arizona	AZ

IS-5087-18R 5025 **Cloning and characterization of a novel leaf rust and stripe rust resistance gene from Sharon goatgrass**

Crop Health

App. Duration: 3 years

* Minz-Dub, A.	Tel Aviv U	
Muehlbauer, G.J.	U Minnesota	MN
Millet, E.	Tel Aviv U	
Sharon, A.	Tel Aviv U	

US-5089-18 **Cloning and comparative sequence analysis of powdery mildew and leaf rust resistance gene complements in wild barley**

Crop Health

App. Duration: 3 years

Steffenson, B.J.	U Minnesota	MN
Mayrose, I.	Tel Aviv U	
Muehlbauer, G.J.	U Minnesota	MN
Sharon, A.	Tel Aviv U	

US-5090-18F **Novel nematode-derived insecticidal proteins for pest control** — Crop Health — App. Duration: 1 year

* Dillman, A.R.	UC, Riverside	CA
* Ment, D.	ARO, Min. Ag.	

IS-5092-18R 5035 **Identifying molecular markers for defense metabolites against aphid feeding in wild emmer wheat** — Crop Health — App. Duration: 3 years

* Tzin, V.	Ben Gurion U	
Dilkes, B.	Purdue	IN
Sela, H.	Tel Aviv U	

IS-5103-18R 4922 **Engineering parthenocarpic fruit production in tomato** — Crop Production — App. Duration: 3 years

Ori, N.	Hebrew U	
Reed, J.W.	U No. Carolina	NC

IS-5106-18R 5008 **Exploring the polyembryonic seed trait in mango as a basis for a biotechnology platform for fruit tree crops** — Crop Production — App. Duration: 3 years

Sherman, A.	ARO, Min. Ag.	
Kuhn, D.N.	USDA, ARS	FL
Cohen, Y.	ARO, Min. Ag.	
Ophir, R.	ARO, Min. Ag.	

US-5112-18 **Regulation of plant transpiration by carbohydrate availability** — Crop Production — App. Duration: 3 years

Holbrook, N.M	Harvard U	MA
* Sperling, O.	ARO, Min. Ag.	
Ben-Gal, A.	ARO, Min. Ag.	

IS-5116-18 **Increasing the spectrum of genetic variation accessible for wheat breeding by using loss-of-function mutants of anti-recombination genes** — Crop Production — App. Duration: 3 years

Korol, A.B.	U Haifa	
Akhunov, E.	Kansas St. U	KS

IS-5120-18C 4818 **Fine tuning the shoot and inflorescence architectures for improved tomato yield** — Crop Production — App. Duration: 3 years

Eshed, Y.	Weizmann Inst.	
Lippman, Z.B.	Cold Spring Harbor	NY

IS-5124-18 **Risk of soil erosion by water estimated with remotely-sensed rainfall data, process-based models and weather generators** — Environ/Water/Ren. Res. — App. Duration: 3 years

Morin, E.	Hebrew U	
Goodrich, D.C.	USDA, ARS	AZ
Assouline, S.	ARO, Min. Ag.	
Nearing, M.	USDA, ARS	AZ
Argaman, E.	ARO, Min. Ag.	
Guertin, D.P.	U Arizona	AZ
Hernandez, M.	USDA, ARS	AZ

IS-5125-18R 5049 **Increasing water availability through agricultural groundwater recharge** — Environ/Water/Ren. Res. — App. Duration: 3 years

Furman, A.	Technion	
* Dahlke, H.E.	UC, Davis	CA
Weisbrod, N.	Ben Gurion U	
Raveh, E.	ARO, Min. Ag.	

IS-5130-18 **Distributed UV LEDs for combined control of fouling of drip emitters and disinfection during irrigation with reclaimed wastewater effluent** — Environ/Water/Ren. Res. — App. Duration: 3 years

Friedler, E.	Technion	
Linden, K.G.	Colorado U	CO

US-5135-18C 4771 **In planta transformation of wastewater-derived contaminants** — Environ/Water/Ren. Res. — App. Duration: 3 years

Pedersen, J.A.	U Wisconsin	WI
Shenker, M.	Hebrew U	
Chefetz, B.	Hebrew U	
* Roback, S.	UCA, Irvine	CA

IS-5143-18R 5041 **New insights into apple calcium application: Understanding its contradicting effects on postharvest disorders for improved fruit quality** — Food Product — App. Duration: 3 years

* Gamrasni, D.	MIGAL R&D	
* Kalcsits, L.	WA State U	WA
Friedman, H.	ARO, Min. Ag.	

IS-5146-18 **Green nature inspired nano-sanitizers for enhancing safety of ready-to-eat fruits and vegetables** — Food Product — App. Duration: 3 years

Poverenov, E.	ARO, Min. Ag.	
Demokritou, P.	Harvard U	MA
Luo, Y.	USDA, ARS	MD
Rodov, V.	ARO, Min. Ag.	

* Indicates an early career scientist (less than 5 years from first institutional appointment)