# Ig Nobel Prizes 2019

#### **Medicine Prize**

Silvano Gallus

" for collecting evidence that pizza might protect against illness and death, if the pizza is made and eaten in Italy"

REFERENCE: "Does Pizza Protect Against Cancer?"

REFERENCE: "Pizza and Risk of Acute Myocardial Infarction,"

REFERENCE: "Pizza Consumption and the Risk of Breast, Ovarian and Prostate Cancer,"



### **Medical Education Prize**

Karen Pryor and Theresa McKeon

"Behaviors in humans have been successfully reinforced using the acoustic stimulus from a mechanical clicker, where the clicker serves as a conditioned reinforcer that communicates in a way that is language- and judgment-free"

REFERENCE: "Is Teaching Simple Surgical Skills Using an Operant Learning Program More Effective Than Teaching by Demonstration,"

## **Biology Prize**

Ling-Jun Kong, Herbert Crepaz, Agnieszka Górecka, Aleksandra Urbanek, Rainer Dumke, and Tomasz Paterek

a)

" for discovering that dead magnetized cockroaches behave differently than living magnetized cockroaches "

REFERENCE: "In-Vivo Biomagnetic Characterisation of the American Cockroach,"



#### **Anatomy Prize**

Roger Mieusset and Bourras Bengoudifa



## **Chemistry Prize**

Shigeru Watanabe, Mineko Ohnishi, Kaori Imai, Eiji Kawano, and Seiji Igarashi

" for estimating the total saliva volume produced per day by a typical five-year-old child "

REFERENCE: "Estimation of the Total Saliva Volume Produced Per Day in Five-Year-Old Children," August 1995

WHO ATTENDED THE CEREMONY: Shiguru Watanabe [and his adult sons, who were some of the subjects of the study when they were children 35 years ago]



## **Engineering Prize**

Iman Farahbakhsh

"for inventing a diaper-changing machine for use on human infants."

REFERENCE: "Infant Washer and Diaper-Changer Apparatus and Method," US patent 10034582, granted to Iman Farahbakhsh, July 31, 2018.



#### **Economics Prize**

Habip Gedik, Timothy A. Voss, and Andreas Voss

" for testing which country's paper money is best at transmitting dangerous bacteria. "

REFERENCE: "Money and Transmission of Bacteria,"

Country	Currency	MRSA		VRE		ESBL (+) <i>E.coli</i>	
		Direct wet swab	Tube titration of swab	Direct wet swab	Tube titration of swab	Direct wet swab	Tube titration of swab
European countries	Euro	Ø	Ø	+	Ø	+++	+++
Croatia	Kuna	Ø	Ø	Ø	Ø	Ø	Ø
Romania	Leu (RON)	+++	+++	+++	+++	+++	+++
Morocco	Dirham	Ø	Ø	+	Ø	++	Ø
USA	Dollar	+++	+++	++	Ø	+	Ø
Canada	Canadian Dollar	+++	+++	+	Ø	+++	Ø
India	Rupee	Ø	Ø	+	Ø	Ø	Ø

+++ = confluent growth, ++ = multiple segments, + = single colonies, Ø = no growth.

#### **Peace Prize**

Ghada A. bin Saif, Alexandru Papoiu, Liliana Banari, Francis McGlone, Shawn G. Kwatra, Yiong-Huak Chan, and Gil Yosipovitch

" for trying to measure the pleasurability of scratching an itch."

REFERENCE: "<u>The Pleasurability of Scratching an Itch: A</u> <u>Psychophysical and Topographical Assessment</u>,"



### **Psychology Prize**

Fritz Strack

" for discovering that holding a pen in one's mouth makes one smile, which makes one happier — and for then discovering that it does not. "

REFERENCE: "Inhibiting and facilitating conditions of the human smile: a nonobtrusive test of the facial feedback hypothesis," Fritz Strack, Leonard L. Martin, and Sabine Stepper, *Journal of Personality and Social Psychology*, vol. 54, no. 5, 1988, pp. 768-777.

REFERENCE: "From Data to Truth in Psychological Science. A Personal Perspective," Fritz Strack, *Frontiers in Psychology*, May 16, 2017.

#### **Physics Prize**

Patricia Yang, Alexander Lee, Miles Chan, Alynn Martin, Ashley Edwards, Scott Carver, and David Hu

" for studying how, and why, wombats make cube-shaped poo"

REFERENCE: "<u>How Do Wombats Make Cubed Poo?</u>" Patricia J. Yang, Miles Chan, Scott Carver, and David L. Hu, paper presented at the 71st Annual Meeting of the APS Division of Fluid Dynamics, Abstract: E19.0000, November 18–20, 2018.

NOTE: This the SECOND Ig Nobel Prize awarded to Patricia Yang and David Hu. They and two other colleagues shared the 2015 Ig Nobel Physics Prize, for testing the biological principle that nearly all mammals empty their bladders in about 21 seconds (plus or minus 13 seconds)

### Why cubes?

"People have had all sorts of theories," says <u>Mike Swinbourne</u>, a wombat expert at the University of Adelaide in Australia. One popular postulate is that wombats make cubes so that they can stack them to mark their territory, without the pieces rolling away. But Swinbourne says that's a misconception. While wombats do use their scat to mark territory, "it's not like they're trying to build little brick pyramids," he says. "They just poop where they poop."

Instead, Swinbourne says the cubic shape is more likely related to the dry environments that most wombats live in. "They have to really squeeze every drop of moisture out [of their food]," he said. And sometimes, in zoos, where the animals have readier access to hydration, Swinbourne says their scat is less cubic. Being dry helps the scats form more rigid shapes with sharper angles.

#### Wombat poop Abstract quotes

" wombats--derived from veterinary euthanized individuals following motor vehicle collisions in Tasmania, Australia "

" By emptying the intestine and inflating it with a long balloon, we found that the local strain varies from 20 percent at the cube's corners to 75 percent at its edges. Thus, the intestine stretches preferentially at the walls to facilitate cube formation "

"This study addresses the long-standing mystery of cubic scat formation and provides insight into new manufacturing techniques for non-axisymmetric structures using soft tissues. "

#### Wombat poop Author quotes

"At first I thought they maybe have square anus, or maybe [the cube] forms right around the stomach," she [Patricia Yang] said.

"We opened those intestines up like it was Christmas," said co-author David Hu, also from Georgia Tech, according to Science News

