LUSH PRIZE 2020
AWARDS CEREMONY

THE 2020 **LUSH
PRIZE**
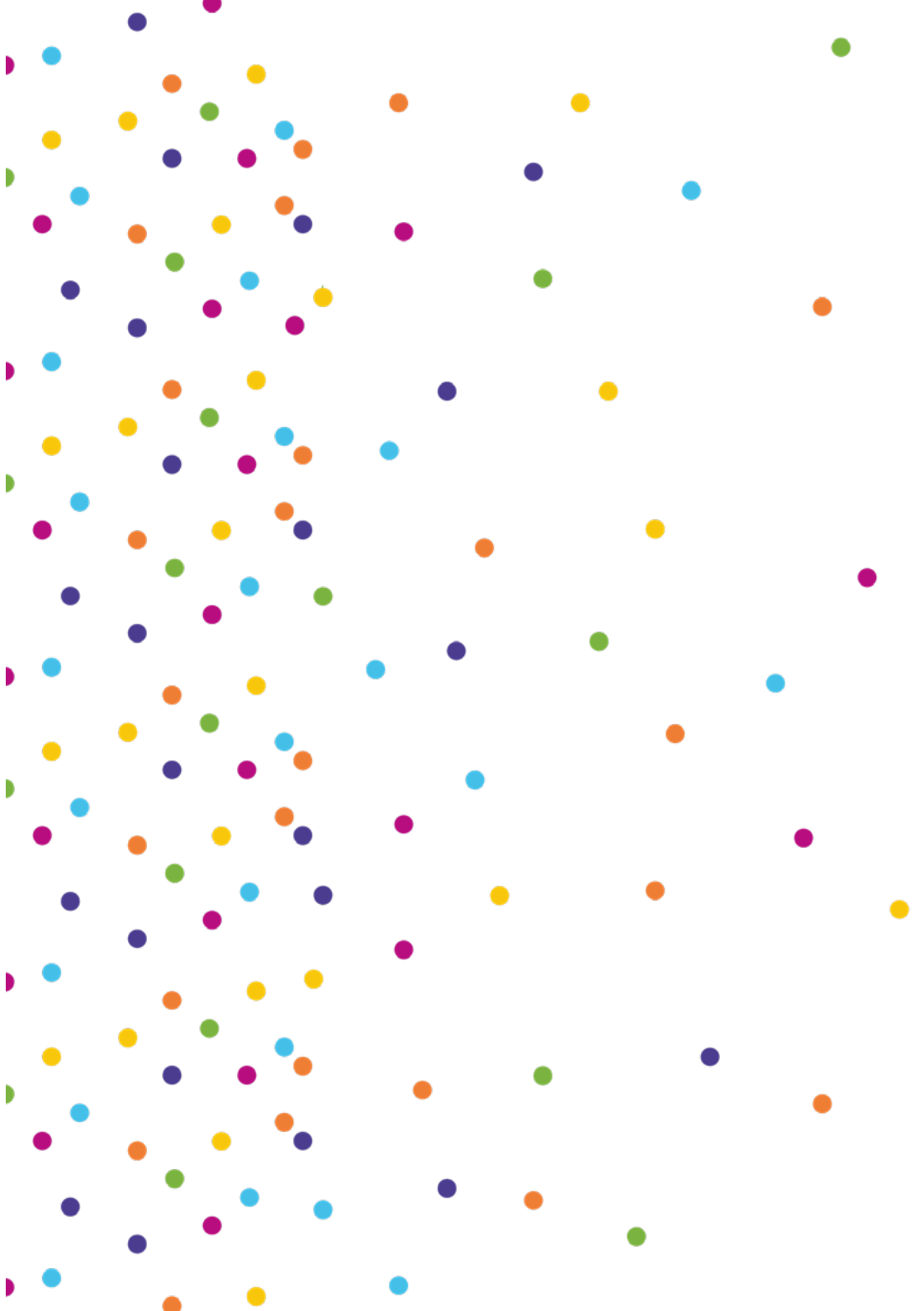
**SUPPORTING
ANIMAL-FREE
TESTING**

www.lushprize.org

Welcome to the Lush Prize 2020 Awards Ceremony

Thank you all for taking the time today to attend yet another online event, in a world where they are no longer unusual.

In this programme is:
- a running order for the evening so that you can follow where we are
- more details about the winning projects we'll be hearing about

In the old world, where me met in big rooms to hold our prizes, this programme would be laid out on the dining tables along with all the cutlery, wine glasses, and weird Lush Prize decorations like syringes and molecular structures.

Although we're not doing it this way in 2020, we thought a programme might still be fun….not least because some people like to hang onto them as a record of the event.

The 2020 Lush Prize was originally planned to take place in May in London. It's taken us this long to work out how and what to replace it with. But we didn't want to let it slip too far.

Campaigning to permanently remove animals from toxicity testing laboratories globally was always going to take a couple of decades at best. But the pressure, and indeed the resources, to drive replacements needs to be constant to get there.

A pandemic, though disruptive, shouldn't stop us trying to reach our longer term goals. So, like everyone else, we're learning how best to make an exciting awards event that people can watch from their homes.

As we write this, we've no idea whether it will be triumph or disaster or something in between. As it's hard for us to know what it looks like from other computer screens, we're keen to receive your feedback. The form on our website would be a great way of doing this: lushprize.org/contact-us

Thanks again for coming.

Rob Harrison
Lush Prize Director

About this evening

Our host

We are delighted to see Neil Mullarkey return as the Lush Prize Awards host for the third time.
From co-founding the world famous improvisation group The Comedy Store Players with Mike Myers, through to appearing on the likes of Have I Got News For You, Whose Line Is It Anyway, Austin Powers movies, Saturday Live and QI, Neil Mullarkey has worked with some of the most talented names in comedy, film and television.

The Trophies

For the last three awards events, our iconic Lush Prize awards have been produced by Brendan Hesmondhalgh, a Yorkshire-based animal sculptor who works primarily in clay, wax and bronze.
Brendan creates sculptural works that encapsulate and embody a creature's spirit in a unique style, and focus upon structure, movement and character. Our boxing hares are each handmade and unique.

Entertainment

Benjamin Zephaniah

Benjamin Zephaniah is a busy man - an award-winning poet, musician, playwrite, actor, professor of poetry and an activist for human and animal rights. So he is an ideal choice for performing a poem specially produced for tonight's Lush Prize Awards Ceremony, titled 'Quite Lush'.


Korean dance troup

In 2016 Lush Prize launched the Young Researcher Asia Awards in Seoul, South Korea,
The Dance Joa Dance Academy performed a spectacular interpretation of the cruelty of animal testing for cosmetics and we decided to share this with you tonight.

Big data animation

This bespoke animation, created by Wayne McCauslin, begins by looking at the key reasons for supporting non-animal testing. It then examines the concept of 'big data' and explores whether it could provide a viable alternative to animal testing.
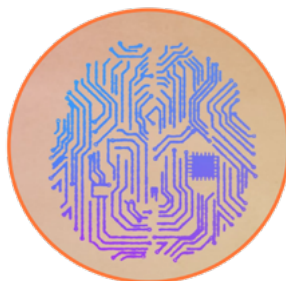
Schedule

Wednesday 11th November 2020. 16.00 - 17.20 GMT

Introduction to the Lush Prize 2020 Awards Ceremony by host Neil Mullarkey.

Introductions from Mark Constantine of Lush, Rebecca Ram of Ethical Consumer Research Association and Lush Prize Judge Kristie Sullivan.

The shortlist and winner / commended projects will be announced for each prize category and the winners will accept their awards, interspersed with entertainment.

Science Prize - introduced by Chris Packham, broadcaster and naturalist
Lobbying Prize - introduced by Caroline Lucas, Member of Parliament
Korean dance troupe
Public Awareness Prize - introduced by Dörthe Eickelberg, film director, actress and TV presenter
Young Researcher Prize - introduced by Dr Pranjul Shah, Lush Prize Young Researcher winner in 2016
Animation: Big Data
Benjamin Zephaniah poetry
Training Prize - introduced by Evanna Lynch, actress
Andrew Tyler Award - introduced by Neil Mullarkey
Rob Harrison on Lush Prize 2020 and the future

Prize
Categories

The Lush Prize is a major initiative aiming to bring forward the day when safety testing takes place without the use of animals.

It focuses pressure on toxicity testing for consumer products and ingredients, in a way which complements the many projects already addressing the use of animals in medical testing.

The Prizes

The prize consists of a biennial fund of £250,000 – the biggest prize in the non-animal testing sector. Between 2012 and 2018 (when the prize was awarded annually) we have awarded £2.19 million in prize funds.

It rewards the most effective projects and individuals who have been working towards the goal of replacing animals in product or ingredient safety testing across five strategic areas:

- Lobbying
- Public Awareness
- Science
- Training
- Young Researcher

In any prize cycle where there is a major breakthrough in 21st Century Toxicology – the area which holds out most hope for a 'Eureka' moment leading to the replacement of animal tests, a Black Box Prize of up to the entire £250,000 fund can be awarded to the individual or team responsible.

Andrew Tyler Award

In 2017 we introduced a new award for outstanding contribution towards ending animal testing.
This non-financial prize is named after Andrew Tyler, a remarkable activist, former director of Animal Aid and a founding Lush Prize judge.

Shortlist: Science Prize

For work most likely to lead to practical non-animal tests which could be accepted by regulators.

AlveoliX – Switzerland

Center for Alternatives to Animal Testing – USA

Nadine Dreser – Germany

Donald Ingber – USA

Laboratory of Environmental Chemistry and Toxicology, Istituto di Ricerche Farmacologiche Mario Negri, IRCCS – Italy

Kyung-Min Lim - South Korea

Thomas Luechtefeld – USA

Medical Device In Vitro Irritation Team (MD-IV-IT) - USA

The MIE Atlas Team – UK

Eugene Muratov – USA

Organ-on-a-chip team at Brunel University London – UK

Organs-on-a-chip Team / Smart Microfluidics, SIMTech (A*STAR) – Singapore

Azra Raza – USA

VeriSIM Life – USA

Winner
Profiles

Dr Timothy Allen

In Silico Models to Predict Human Molecular Initiating Events

The MIE Atlas Team, headed by Dr Timothy Allen, is a collaboration between the University of Cambridge and Unilever's Safety and Environmental Assurance Centre.

They have been building computational models based on chemistry to predict human Molecular Initiating Events – MIEs - since 2013. These models predict in-silico how chemicals can have effects that may lead to Adverse Outcome Pathways - AOPs.

MIEs are the initial interaction between a molecule and a biomolecule or biosystem that can be causally linked to an outcome via a pathway.

The AOP framework for risk assessment has been constructed to allow for the combination of in-silico and in-vitro approaches to safety decision-making based on understanding the effects chemicals have across biological systems. This is in stark contrast to traditional animal methods, which are based on high chemical exposures and observation of late-stage adverse outcomes.

£50,000

Commended
Project

Dr Azra Raza

Tissue Repository

Dr Azra Raza is the Chan Soon-Shiong Professor of Medicine and Director of the MDS Centre at Columbia University in New York.

As an oncologist her work has focused on preleukemia called myelodysplastic syndromes - MDS.

Believing animal-based research to be too artificial, Dr Raza started saving blood, marrow aspirate and biopsy samples from MDS patients as they progressed in their disease.

This Tissue Repository now has over 60,000 samples collected serially from thousands of patients over 35 years and has resulted in seminal observations about MDS biology.

Dr Raza replaced the studies others were doing in animals by directly studying humans and freshly obtained malignant cells from patients. Her major criticism of the cancer paradigm, marked by a 95% failure rate of experimental trials, is that the pre-clinical testing platforms for drug development rely on entirely misleading and cruel studies on animals.

She has co-authored hundreds of academic papers and in 2019 published the book *The First Cell And the Human Costs of Pursuing Cancer to the Last.*

www.azraraza.com

Shortlist: Lobbying Prize

Policy interventions promoting the use of alternatives to animal testing.

Altertox - CAAT Europe - Charles Laroche Conseil – Belgium

Animal Defenders International - UK

Beagle Rescue Network - South Korea

Deneye Hayır Derneği – Turkey

Environment & Animal Society of Taiwan (EAST) – Taiwan

Iranian Anti-Vivisection Association (IAVA) – Iran

Helena Kandarova – Slovakia

New England Anti-Vivisection Society – USA

New Zealand Anti-Vivisection Society and HUHANZ - New Zealand

Winner
Profiles

Environment and Animal Society of Taiwan – EAST

Erasing mandatory animal testing requirements and prioritising non-animal testing methods in the chemical registration process

In 2018, the Environment and Animal Society of Taiwan – EAST – began working on challenging the huge numbers of animals used in toxicity testing for Taiwan's Chemical Substances Registration System.

As the regulations gave no priority to non-animal testing methods, most registrants opt to use customary animal testing methods.

With the help of legislator Shu-Fen Lin, EAST arranged a meeting with the EPA, the authority in charge of Taiwan's chemical registration system.

The results of this lobbying include:
• The EPA now require registrants to prioritize non-animal testing methods;
• Test methods for each toxicity item will be disclosed on the registration website immediately to avoid duplicate animal testing;
• And a discounted registration fee will be given to chemical registration using non-animal data.

www..east.org.tw

£50,000

Commended
Project

Medical Device In Vitro Irritation Team (MD-IV-IT)

In Vitro Irritation Testing of Medical Devices

Rabbit skin irritation testing is one of two in-vivo tests required for all medical devices. Over 50,000 rabbits are currently used annually to satisfy this regulatory requirement.

The International Organization for Standardization sponsored a validation study to determine if reconstructed human epidermis – RhE - assays were acceptable alternatives. Twenty-three research partners from around the world volunteered to participate in the study, proving that RhE assays produced highly accurate results and were therefore suitable replacements for the rabbit skin irritation test.

The Medical Device In Vitro Irritation Team, headed by Dr Kelly Coleman, launched a round robin follow-up study, bringing the total number of RhE tissue assays evaluated to six. Four of these are among the six RhE assays now recognized and included in OECD 439.

The new ISO standard on irritation testing of medical devices, which recommends RhE testing instead of rabbits, was unanimously approved in 2019.

In the long-term, with its widespread adoption, the complete elimination of rabbit irritation testing in the medical device industry is envisaged.

Kelly P. Coleman, Wim H. De Jong, Sebastian Hoffmann, Michelle Lee, Helena Kandárová, Christian Pellevoisin, Yuji Haishima, Beau Rollins, Austin Zdawczyk, Jamin Willoughby, Michael Bachelor, Timothy Schatz, Shelby Skoog, Sherry Parker, Anita Sawyer, Paolo Pescio, Kristina Fant, Kwang-Mahn Kim, Jae Sung Kwon, Helge Gehrke, Hana Hofman-Hüther, Marisa Meloni, Conrad Julius, Damien Briotet, Silvia Letasiova, Reiko Kato, Atsuko Miyajima, Liset J.J. De La Fonteyne, Christelle Videau, Carine Tornier, Audrey P. Turley, Nicholas Christiano, Thor S. Rollins.

Shortlist: Public Awareness Prize

For individuals or organisations raising public awareness of ongoing animal testing.

Animal Aid – UK

Capital Animal Welfare Association – China

Citizens for Alternatives to Animal Research & Experimentation – USA

Collective for Paradigm Change in Science - USA

Deneye Hayır Derneği – Turkey

Djurrättsalliansen (The Animal Rights Alliance) – Sweden

People for Animal Rights Germany (PARG) - Germany

The Scarlett Beagle Campaign – UK

SOKO Tierschutz - Germany

Stichting Proefdiervrij – Netherlands

Animal Rights – Belgium

Innovative Science Education Network – Canada

ONG Te Protejo – Chile

Winner
Profiles

Public Awareness

SOKO Tierschutz

Undercover investigation at the Laboratory of Pharmacology and Toxicology

In 2019, SOKO Tierschutz, working with Cruelty Free International, released the findings of its undercover investigation at the Laboratory of Pharmacology and Toxicology in Mienenbüttel, Germany.

Graphic footage of dogs left bleeding and dying, and monkeys routinely abused, exposed the cruelty caused to animals for regulatory safety testing.

LPT is a contract-testing lab carrying out toxicity testing for pharmaceutical, industrial and agrochemical companies from all over the world in order to meet the requirements of governments and regulatory authorities.

Following SOKO's expose, the lab was raided by police and had its licence to carry out animal experiments revoked. It was also forced to hand over all animals remaining at the lab to suitable third parties.

This is the second time that SOKO has won a Lush Prize. The first was in 2015, following its undercover investigation at the Max-Planck-Institute for Biological Cybernetics in Germany.

www.soko-tierschutz.org

£50,000

Shortlist: Young Researcher Prize

For young scientists (up to 35 years at the time of application) with a desire to fund the next stage of a career focussed on an animal-test free future.

Sabina Burla-Mihaescu – Luxembourg Institute of Science and Technology, Luxembourg

Edoardo Carnesecchi – Utrecht University, Institute for Risk Assessment Sciences, Netherlands

Franziska Dengler – Institute of Veterinary Physiology, University of Leipzig, Germany

Domenico Gadaleta – Computational Toxicology Unit - Laboratory of Environmental Chemistry and Toxicology - Istituto di Ricerche Farmacologiche Mario Negri, IRCCS, Italy

Káren do Carmo Gonçalves - Federal University of Goiás, Brazil

Candice Johnson – Leadscope, Inc., USA

Peter Loskill – Eberhard Karls University Tübingen & Fraunhofer IGB, Germany

Christian Lotz – Fraunhofer ISC, Germany

Serena Manganelli – Nestlé Research, Switzerland

Steffi Matthyssen – University of Antwerp, Belgium

Johanna Nyffeler – US Environmental Protection Agency, USA

Yuan Pang – Tsinghua University, China

Carlos Eduardo Matos Dos Santos – Altox Ltd, Brazil

Winner
Profiles

Young Researcher

Dr Yuan Pang
Tsinghua University, China

Construction of advanced in vitro tissue models based on 3D bioprinting and their application in drug discovery and toxicity test

Dr Yuan Pang and colleagues at Tsinghua University, China, work on constructing advanced in-vitro tissue models based on 3D-bioprinting and their application in drug discovery and toxicity testing.

Their results so far have included a series of studies using the 3D bioprinted cell and tissue models and organ-on-a-chip for high-throughput drug screening and chemical-induced toxicity analysis. Their use with multi-scale numerical simulation for animal-free drug and chemical efficacy predictions is also studied.

The first 3D-printed in-vitro tumor model was established in Dr Pang's group.

While non-animal research in China still has a long way to go, Dr Pang sees it as her responsibility to help develop, promote and implement research supporting a future free of animal testing.

£10,000

Winner
Profiles

Edoardo Carnesecchi
Institute for Risk Assessment Sciences,
Utrecht University, The Netherlands

An innovative software platform to assess chemical mixtures toxicity and exposure

Edoardo Carnesecchi of Utrecht University's Institute for Risk Assessment Sciences is working on an innovative software platform to assess toxicity and exposure of chemical mixtures.

Humans and ecosystems are continuously exposed to a complex mixture of chemicals, the combination of which are vast and originate from different sources such as food, environment, medicines or consumer products.

This project will create a free in-silico platform to quantitatively measure the effects of chemicals towards human health and the environment. The system will show toxicological, eco-toxicological, environmental and phys-chem values of the individual components and of the mixture, using the information on the concentration of the ingredients.

In particular, the web-based in-silico platform will be able to predict human health-related effects, whether beneficial or adverse, of chemical mixtures.

Within a One Health approach, the project aims to reduce the impact of the chemicals through safer use as well as the identification of safer chemicals and provide robust and reliable alternative methods to animal testing.

£10,000

Winner
Profiles

Young Researcher

Dr Johanna Nyffeler
US Environmental Protection Agency

High-throughput phenotypic profiling of human neural progenitor cells to identify putative modes-of-action of developmental neurotoxicants

Dr Johanna Nyffeler is a Postdoctoral Fellow at the United States Environmental Protection Agency working on non-animal research into developmental neurotoxicants.

10-15% of children are affected by neurodevelopmental disorders. Yet, very few chemicals that are present in the environment have been tested for their potential to cause developmental neurotoxicity - DNT.

DNT research still relies heavily on animal research, with over 1,000 animals per study.

Dr Nyffeler's project will help establish a phenotypic profile database that can be used to characterize mechanisms of toxicity of known and unknown DNT chemicals.

This would aide in the development of animal-free new approach methodologies for hazard identification of developmental neurotoxicants. In-vitro models based upon human-derived cells could provide more human-relevant data.

The project would also replace the use of laminin, obtained from mouse carcinomas, in the current assay format with a human recombinant laminin.

£10,000

20

Winner
Profiles

Dr Domenico Gadaleta
Computational Toxicology Unit, Laboratory of
Environmental Chemistry and Toxicology, Istituto di
Ricerche Farmacologiche Mario Negri, Italy

**Development of an Integrated Screening Method
Based on Quantitative Structure-Activity Relationships
Predicting Molecular Initiating Events of Neurotoxicity**

Every day, people are exposed to a large number of
chemicals that have the potential to cause long-term adverse health effects on the
brain.

Dr Domenico Gadaleta, of the Mario Negri Institute for Pharmacological Research in
Italy, is developing a computational platform for early detection of the neurotoxicity of
chemicals.

Artificial intelligence based methods will be applied to derive Quantitative Structure
Activity Relationship computational models. QSARs will be used to predict Molecular
Initiating Events (MIEs) upstream of the biological adverse outcome pathways
responsible for the onset of neurotoxicity.

Based on the degree of activation of MIEs, the potential neurotoxicity of chemicals will
be defined. These computational platforms will be beneficial for large-scale screening
and for early hierarchization of chemicals. This will be made available within the VEGA
HUB suite of computational tools.

£10,000

Winner
Profiles

Young Researcher

Nadine Dreser
University of Konstanz, Germany

Early neurodevelopmental disturbances during sensitive periods of stem cell differentiation

Nadine Dreser, from the University of Konstanz in Germany, is investigating the early stages of nervous system formation in the developing embryo and its response to drugs, known as Developmental Neurotoxicity or DNT.

The test, known as Stop-Tox, involves stem cells being treated with test compounds and checking for toxic effects on cell growth and development, combined with computer algorithms, to accurately measure the level of toxicity.

This successful test is further refined by using the flow of genetic information - gene expression - to provide a high throughput and cost effective system to predict DNT as early as possible.

The test system is being developed with the aim of approval as part of a successful, human-relevant battery of tests to aid research into diseases including spina bifida and replace the very high numbers of animals currently used in generational tests for DNT.

£10,000

Shortlist:
Training Prize

For individuals, teams or organisations involved in training others in non-animal methods.

Charu Chandrasekera – Canada

Chinese Center of Alternative Research and Evaluation – China

Doctors Against Animal Experiments – Germany

Helpathon Team – Netherlands

IVTech srl – Italy

MUI AnimalFree Research Cluster – Austria

Lena Smirnova - USA

3Rs-Centre Utrecht Life Sciences – Netherlands

University of Winchester Centre for Animal Welfare – UK

Winner
Profiles

Helpathon Team

TPI Helpathon

Helpathon accelerates human-relevant research by helping scientists find non-animal methods in their studies.

The Helpathon team realised that many scientists, who currently use animals, were not aware of the vast amount of replacement methods already present, or under development, in The Netherlands.

The team is invited to focus on a research project that would currently use living animals. They then organise an extensive brainstorming session over an informal two day workshop with people from different scientific disciplines but also non-scientists, including financiers, general public and patient organisations.

Together, they reform the project so that the same questions are answered and the same goals can be reached, but now by using non-animal methods. The team continues to make the reformed project happen with the help of collaboration networks and financiers. In this way, they don't just replace animal use for one project but also set the scientist on a new career track for continuing research without using animals.

www.tpihelpathon.nl

£50,000

Andrew Tyler Prize

In 2017 Lush Prize introduced a new award for outstanding contribution towards ending animal testing.

The non-financial prize is named after Andrew Tyler, former director of Animal Aid and a founding Lush Prize judge.

The winner is selected at the discretion of the Lush Prize judging panel and will not necessarily be awarded each prize year.

In 2018 it was awarded to Professor Horst Spielmann. Horst is head of the European Society for Alternatives to Animal Testing and for the past 30 years his work has been instrumental in the development and acceptance of scientific alternatives to animal use globally.

At the 2017 Awards ceremony Andrew's wife Sara Starkey accepted the first award on his behalf.

Winner
Profiles

Andrew Tyler Award

Andrew Rowan

Andrew Rowan is the former president and CEO of Humane Society International and Chief Scientific Officer for the Humane Society of the United States.

He has been advocating for alternatives to animal testing since his time with FRAME in 1976 and later founded the Tufts University Center for Animals and Public Policy, where he remains an adjunct professor to this day.

Andrew Rowan has authored or co-authored numerous books and over one hundred academic papers on animal research and alternatives, on companion animal and humane wildlife management and on human-animal interactions.

Today, Andrew is President and Chief Program Officer of WellBeing International, a charity that seeks to achieve optimal well-being for people, animals and the environment.

The
Judges

Andrew Burns

Andrew was selected as the Lush Staff member judge for 2020. He is currently a supervisor in the Lush Glasgow Fort store and is in the final year of his PhD in Structural Biology at the University of Glasgow.

Nick Jukes

Nick is Co-ordinator of InterNICHE, the International Network for Humane Education. He has been working internationally for over 25 years to enhance education and training in the life sciences through replacement of dissection and animal experiments.

Professor Lisbeth Knudsen

Lisbeth is professor of Toxicology at the University of Copenhagen with main areas of research in toxicology, genotoxicology, biomonitoring, alternatives to animal experiments, ethical aspects of genetic testing and biomonitoring.

Dr Gill Langley

Gill is an animal rights scientist and writer who specialises in non-animal alternatives to animal research and testing.
From 1981 to 2008 she was the science director of the Dr Hadwen Trust, a medical research charity funding health research without using animals.

Troy Seidle

Troy is Vice President, Research and Toxicology at Humane Society International. In this role he leads HSI's global team of campaigners, lobbyists and scientists working to end animal testing for cosmetics.

Dr Pranjul Shah

Pranjul won a Lush Prize Young Researcher award in 2016. He leads the University of Luxembourg Incubator, which is the hub for Innovation and Entrepreneurship. Pranjul is the inventor of HuMiX gut on a chip system, which makes it possible to probe the human gut in relation to the gut bacteria (microbiome) and their role in our health and disease.

Dr Gilly Stoddart

Gilly is the associate director of the PETA International Science Consortium, Ltd.
She has seven years experience working in research and development and has been working on reducing animal testing, focusing on regulatory testing issues, for 4 years.

Kristie Sullivan

Kristie is Vice President of Research Policy at the Physicians Committee for Responsible Medicine, where she promotes more human-relevant alternatives to the use of animals in the research and testing of drugs, chemicals, pesticides, and other products through outreach to companies, federal agencies, legislators, and others

Kai-Chuan Tang

Kai-Chuan is the Lush Customer Judge for 2020. She is a Berlin-based Taiwanese blogger and reporter, who dedicates herself to sharing ideas of building a conscious lifestyle.

Professor Thales Tréz

Thales is a biologist and full time professor at the Institute of Science and Techonology (Alfenas Federal University) in Brazil.
Since the beginning of his academic career in 2000, Thales' work focuses on the use of animals for educational and research purposes, providing a criticism from a scientific approach.

The Lush Prize would like to thank

All of our judges for the knowledge and experience brought to the 2020 decision-making process.

Mark and Mo Constantine of Lush.

The Lush Prize Management Team:
Hilary Jones, Karl Bygrave, Karen Huxley, Kirsty Barnes and Sophie Walker from Lush; and Craig Redmond, Rob Harrison, Rebecca Ram and Alex Crumbie from Ethical Consumer.

Everyone from the Lush global PR and social media teams.

Brendan Hesmondhalgh, creator of the hare trophies.

Chris Packham, Caroline Lucas, Evanna Lynch, Pranjul Shah and Dörthe Eickelberg for announcing the shortlists and winners.

Neil Mullarkey, our host.

...and every single person who has played, and continues to play, a part in the inter-linked movements for animal compassion and scientific rigour.

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