The Beckley Foundation is a charitable organisation set up by Amanda Feilding in 1998 to initiate and carry out pioneering research into the therapeutic potential of psychedelics, and to create a scientific base for global drug policy reform. The work of the Foundation relies entirely on donations.

Our aim is to harness the power of science in order to integrate psychoactive substances into society as safe and effective tools, to treat a broad range of health conditions and enhance wellbeing.

“What we have done so far is open the door. However, there is an immense wealth of knowledge to continue mining.” - Amanda Feilding
Psychedelics have the potential to create a revolutionary paradigm shift in mental health. There is now a unique window of opportunity to accelerate research so that the therapeutic value of these compounds may be recognised and used to its full potential.

Amanda Feilding is committed to using this momentum to further push the limits of scientific knowledge, with a wide spectrum of projects investigating LSD, psilocybin, ibogaine, 5-MeO-DMT, and ayahuasca.

Our aim is to facilitate broad access to psychedelic-assisted therapies for those in need through the exploration of alternative, more practical ways to use these compounds in therapy.

Many thanks to our donors!

To advance our knowledge of psychedelics and their therapeutic potential, and to ensure that governments, and indeed the public and private sectors, are properly informed, the Beckley Foundation relies exclusively on the generosity of our supporters. Donations of any amount are greatly appreciated and help us develop and expand our science, policy and outreach programmes.

Hold your phone camera up to the QR code to access our website and support the work of the Foundation.

To donate, please visit beckleyfoundation.org/donate
In 1966 I had the good fortune of meeting an exceptional Dutch scientist, with whom I worked for the next 25 years, trying to gain a better understanding of the physiology and the psychology of the human state, and how psychedelics can change its working capacity, and how, with certain knowledge, one can gain control of that increased capacity. It was the most exciting study I had ever done, and I am still doing it. My aim then, as it is now, was to increase our understanding of the mechanisms underlying the effects of psychedelics, so that we are better able to use them as invaluable tools to treat illness and enhance wellbeing.

When I established the Beckley Foundation in 1998, I did so with a vision of working with leading scientists from around the world, in order to break the taboo surrounding psychedelics by providing the best scientific evidence as to their true effects, thereby overcoming the Taboo, and integrating them into society. It was also necessary to reform global drug policy, so that it was based on scientific evidence, not political expediency.

I am proud that the ground-breaking studies that have been carried out through the Beckley Foundation Research Programmes – from the first neuroimaging studies of psilocybin, LSD, MDMA and DMT, to the first study looking into the potential of psilocybin-assisted therapy to overcome treatment-resistant depression (and addiction) – have helped bring about the Psychedelic Renaissance, and raised the profile of the entire field, widening the space in which other researchers and policy experts can act.

Ever more evidence from rigorously conducted research is confirming the high therapeutic value of psychedelics, with potential benefits that extend far beyond the field of psychiatry. We must keep the momentum going and bring about a paradigm shift in society that facilitates access to the medical and therapeutic use of these compounds to those in need worldwide.

For the last few years I have also been very interested in investigating microdoses of these psychedelic compounds, to treat other conditions, including neuro-degenerative illnesses, such as Alzheimer’s and Parkinson’s Disease, and indeed also for the purpose of enhancing wellbeing, creativity, happiness and vitality.

Following more than a decade of significant breakthroughs with the Beckley/Imperial Research Programme, which I set up with Dave Nutt in 2008, I have more recently been expanding the work with new collaborations and leading scientists around the world. I am very excited about the next phase of our work which will combine exploratory studies into the underlying mechanisms of action of LSD, the compound I consider the ‘Queen of Psychedelics’, as well as ground-breaking clinical trials investigating its, and other compounds’, therapeutic potential.

We are also embarking on the journey towards the important aim of making these breakthrough compounds accessible to all those in need, through the development of legally regulated compounds, clinics and retreat centres.

Faithful to our original mission, the Beckley Foundation will continue expanding the limits of our knowledge by conducting the best possible exploratory and clinical research, and daring to explore new and taboo territories. This endeavour cannot be achieved without the collaboration of visionary philanthropists who share our pioneering vision and mission to transform humanity, currently suffering from a pandemic of mental health disorders, and other dysfunctional states, into a healthier and happier species.
Why Support Us?

- A TRACK RECORD OF MAJOR BREAKTHROUGHS - P6
- CAMPAIGN FOR CHANGES TO GLOBAL DRUG POLICY - P29
- ADVISED BY THE LEADING EXPERTS IN THE FIELD - P27
- HIGH-STANDARD PUBLICATIONS TO INFLUENCE PSYCHEDELIC RESEARCH - P26
- NEW RESEARCH PROGRAMME - P18
- A WIDE RANGE OF COMPOUNDS AND RESEARCH INTERESTS - P8
- A FAR-REACHING GLOBAL VOICE & HIGHLY INFLUENTIAL PRESENCE IN THE MEDIA - P9
- COLLABORATIONS WITH LEADING UNIVERSITIES WORLDWIDE - P11
- LANDMARK STUDIES - P12
Collaboration with Prof Franz Vollenweider on a study investigating psilocybin’s effects on changes in cerebral circulation using PET.

The Beckley/Bristol Research Programme is established, with Amanda and Prof David Nutt as co-directors.

Amanda establishes the Beckley/Imperial Research Programme with Prof David Nutt and herself as co-directors, and appoints Dr Robin Carhart-Harris as Principal Investigator.

The Beckley/Imperial Research Programme conducts the first fMRI study of psilocybin, identifying, for the first time, crucial changes in the default mode network during the psychedelic experience.

Amanda sets up a series of international seminars, *Society and Drugs*, at the House of Lords, which had a high impact globally.

Amanda’s collaboration with Berkeley, California, gains the first ethical approval for a brain imaging study with LSD in humans.

Amanda convenes the global Cannabis Commission which results in the seminal report *Cannabis Policy: Moving Beyond the Stalemate*, later presented at the UN. Starts investigating CBD.

Amanda’s collaborative research with UCL on the effects of CBD vs THC is featured in the Channel 4 documentary *The Cannabis Trial*.

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A Track Record of Major Breakthroughs

<table>
<thead>
<tr>
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The **Beckley/Imperial Research Programme** publishes our first ground-breaking results on psilocybin-assisted therapy for treatment resistant depression.

The **Beckley/Brazil** and the **Beckley/Maastricht Psychedelic Research Programmes** are established to investigate the potential of LSD and other compounds.

Amanda develops the **Double-Headed LSD Research Programme** with leading experts in neuroscience, including the first personalised fMRI study with LSD, and the first clinical study of LSD microdosing for Alzheimer’s.

The **Beckley/Sant Pau Research Programme** publishes a landmark study showing, for the first time in history, images of the human brain on LSD, using cutting-edge brain-imaging technology.

The **Beckley/Brazil Collaboration** demonstrate the beneficial effect of LSD on neuroplasticity in lab-grown minibrains, and enhancement of cognitive functions in rats.

The first results from the **Beckley/Maastricht Research Programme** demonstrates, for the first time, the beneficial effects of LSD microdosing on mood, vigilance, neuroplasticity (BDNF) and pain tolerance.

**Psychedelic Milestones**

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<th>2016</th>
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<td>2016</td>
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<td>2019</td>
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A Wide Range of Compounds and Research Interests

Lysergic Acid Diethylamide
- Full dose: First LSD neuroimaging study
- Full dose: First personalized imaging study
- Microdose: LSD microdosing research programme indicating improvements in mood, cognition and pain management
- Microdose: First clinical study of LSD microdosing for Alzheimer’s

5-methoxy-N,N,N-dimethyltryptamine
- Translational research exploring the therapeutic potential of 5-MeO-DMT
- First 5-MeO-DMT neuroimaging study: investigating the neural correlates of the mystical experience

Psilocybin
- Full dose: Breakthrough brain imaging study that demonstrated changes in DMN function, global functional connectivity and entropy
- First clinical study in treatment-resistant depression
- First clinical study for nicotine addiction
- Microdose: Evaluating the benefits of natural psilocybin mushrooms microdosing in palliative care

Ibogaine
- Microdose: First clinical study in Parkinson’s sufferers
- Exploration of other therapeutic applications

Cannabis
- Neuroimaging research on the effects of different concentrations of THC and CBD
- CBD for smoking cessation

Ayahuasca/DMT
- Long-term effects of ayahuasca when ingested in a ritual setting on the personal development and mental and emotional wellbeing of Western users
- First neuroimaging investigation of DMT
A Global Voice

A Wide Range of Compounds and Research Interests


2,000+ Articles on Psilocybin for depression including The Guardian (78,000 shares), The Spectator, The Mail Online, The Mirror, CNN and The Sun

6 million+ Views of The Guardian’s “LSD’s impact on the brain revealed in ground-breaking images”

500,000+ Twitter impressions per month. Followers include politicians, international journalists, healthcare professionals, academic researchers and leading research institutions.

120,000 Facebook fans include scientists, policymakers, top journalists and medical cannabis campaign groups. Beckley research videos have been watched over 500,000 times.

Lysergic Acid Diethylamide (LSD)

Ibogaine

Cannabis

Ayahuasca/DMT

Psilocybin

5-MeO-DMT

5-methoxy-N,N-dimethyl-tryptamine

With the acid countess: Amanda Fielding and the medical case for drugs reform

Douglas and Brain Scans Herald Stage of LSD Research

The English Countess Revolutionizing Psychedelic Drugs Research

The brain on DMT: mapping the psychedelic drug's effects

Queen of The Psychodelic Renaissance: Amanda Fielding Has Been Committed To Cognitive Liberty For 55 Years

The Beckley Foundation Intends To Study Links Between Microdosing LSD And Creativity

Full dose:
- First LSD neuroimaging study
- First personalised imaging study

Microdose:
- LSD microdosing research programme indicating improvements in mood, cognition and pain management
- First clinical study of LSD microdosing for Alzheimer's

Microdose:
- First clinical study in Parkinson's sufferers
- Exploration of other therapeutic applications

Neuroimaging research on the effects of different concentrations of THC and CBD

CBD for smoking cessation

Long-term effects of ayahuasca, when ingested in a ritual setting, on the personal development and mental and emotional wellbeing of Western users

First neuroimaging investigation of DMT

Full dose:
- Breakthrough brain imaging study that demonstrated changes in DMN function, global functional connectivity and entropy
- First clinical study in treatment-resistant depression
- First clinical study for nicotine addiction

Microdose:
- Evaluating the benefits of natural psilocybin mushrooms microdosing in palliative care

Translational research exploring the therapeutic potential of 5-MeO-DMT

First 5-MeO-DMT neuroimaging study: investigating the neural correlates of the mystical experience
Amanda Feilding’s Collaborations with Leading

Beckley/UCL
Set up in 2012
- Research on MDMA and self-compassion.
- Neuroimaging study of the effects of THC and CBD.

Beckley/Johns Hopkins
Set up in 2008
- First psilocybin-assisted therapy for smoking cessation.
- 80% abstinence rate at 6 months.

Beckley/ICEERS
Set up in 2014
Observational research on long term effects of ayahuasca ceremonies on grief and wellbeing.

Beckley/Sant Pau
Set up in 2013
First evidence for effects of ayahuasca on neurogenesis and mindfulness.
Universities and Research Institutes Worldwide

Beckley/Imperial
Set up in 2008, co-directed by Amanda Feilding and Prof David Nutt (appointed Robin Carhart-Harris as PI)
The Beckley/Imperial Research Programme has carried out pioneering research for over 12 years, which contributed greatly to the Psychedelic Renaissance. In 2019, this Programme evolved into the Imperial College Centre for Psychedelic Research.

Key achievements:
• First neuroimaging studies with LSD, DMT and MDMA
• First discovery of the effects of psilocybin on DMN function, brain connectivity and entropy
• Landmark study of psilocybin-assisted therapy for treatment-resistant depression, that kick-started global efforts to develop psilocybin-assisted therapy into a licensed treatment for depression
• Over 60 peer-reviewed research publications

Beckley/Brazil
Set up in 2017, co-directed by Amanda Feilding, Profs Sidarta Ribeiro and Stevens Rehen

Key achievements:
• Translational studies with cells, minibrains, animals and humans, investigating the effects of LSD on neuroplasticity, inflammation, cognition, mood, and longevity
• Evidence that LSD enhances exploratory behaviour in old animals
• Development of a preclinical research programme on Alzheimer’s Disease

Beckley/Maastricht
Set up in 2017, co-directed by Amanda Feilding and Prof Jan Ramaekers

Key achievements:
• LSD microdosing dose finding study investigating the effects of low doses of LSD on mood, cognition and pain tolerance
• First LSD microdosing study (repeated doses) investigating the effects of LSD on neuroplasticity (results under analysis)
• Investigating in more depth the effects of psilocybin on brain function using MR spectroscopy and fMRI
First fMRI study with psilocybin

This project, initiated by Amanda Feilding and Robin Carhart-Harris in 2009, was designed to measure changes in brain blood flow, activity and connectivity induced by psilocybin. Global and regional changes in cerebral blood flow brought about by psilocybin were investigated using brain imaging (ASL and BOLD). We also investigated how psilocybin changes the pattern of connectivity between different brain regions in response to attention-demanding tasks or emotionally significant stimuli.

The findings from this study were published to international acclaim in the prestigious scientific journal PNAS in 2012. This groundbreaking study generated over half a dozen other articles, each furthering our understanding of the way psychedelics alter consciousness and informing the scientific basis for the use of psilocybin as an aid to psychotherapy. Results from this study led to the Medical Research Council awarding a grant to study the efficacy of psilocybin for the treatment of depression.

KEY FINDINGS

- Decrease in Cerebral Blood Flow in thalamus and parts of the Default Mode Network (DMN)
- Reduced interaction between regions of the DMN
- Dramatic increase in diversity of connections between regions that do not normally communicate

This analysis of data from the first Beckley/Imperial psilocybin study illustrates how psilocybin promotes strong, long-range, functional connections between brain regions which do not communicate significantly in normal consciousness. The psychedelic state is associated with less constrained neural networks, revealing the potential to enhance creativity and treat mental illnesses.
First study of psilocybin-assisted therapy for treatment-resistant depression

This landmark study, carried out as part of the Beckley/Imperial Psychedelic Research Programme, has provided the first clinical evidence for the efficacy of psilocybin-assisted psychotherapy to treat depression, and has paved the way for the global surge of interest in the therapeutic value of this class of compounds for mental health.

Twenty patients who had suffered from depression for an average of 18 years, all of whom had previously tried at least two other treatment methods without success, were given two doses of psilocybin (a medium dose and a full dose) 7 days apart, accompanied by psychological support before, during, and after each session.

KEY FINDINGS

• All patients showed some reductions in their depression scores at 1-week post-treatment
• Maximal effects were seen at 5 weeks, where 47% of patients still had their depression scores reduced by half or more, and 21% were in complete remission
• Results remained positive at 6 months, with 31% of patients maintaining clinical response
• The occurrence of a mystical experience was associated with better outcomes
• The drug was well tolerated by all participants, and no patients sought conventional antidepressant treatment within 5 weeks of the psilocybin intervention

First study of psilocybin-assisted therapy for nicotine addiction

In 2014, based on her own experience, Amanda initiated and provided the seed funding for a study at Johns Hopkins University into the efficacy of psilocybin-assisted therapy to facilitate smoking cessation. Building on the results of this pilot study, the team is now conducting a larger placebo-controlled trial.

KEY FINDINGS OF PILOT STUDY IN 15 PARTICIPANTS

• 12 months after the therapeutic sessions, 80% of participants remained completely abstinent from smoking.
The First Brain Imaging Study to Investigate the Effects of LSD

In 2014, the Beckley/Imperial Research Programme started the first ever brain imaging study with LSD, a long-standing ambition of Amanda’s. Results were published in PNAS in 2016 and launched at the Royal Society, London, to global acclaim. Marked changes were observed in brain blood flow, neural activity, and network communication patterns that correlated strongly with the drug’s hallucinatory and other consciousness-altering properties.

LSD was shown to decrease connectivity between key regions of the brain’s Default Mode Network (DMN) that are involved in processing various aspects of selfhood, such as autobiographical memories and self-awareness, thinking about the past, and planning the future. This effect correlated strongly with the subjective experience of ‘ego dissolution’, implying the importance of the DMN for maintaining the boundaries of the ego.

At the same time, LSD caused a dramatic increase in connectivity between other regions of the brain that are normally highly segregated. This can induce more free-flowing patterns of cognition, allowing users to become more creative and break free from rigid modes of thought and behaviour, such as those underlying psychological disorders like depression and addiction.

These results have significant implications for the neurobiology of consciousness, as well as for potential applications of LSD as a valuable tool for psychotherapy.

Neural correlates of the LSD experience revealed by multimodal neuroimaging shows dramatically increased connectivity between the visual centre and the rest of the brain.
Lifting the Lid on LSD: Microdoses

About Microdosing

The practice of microdosing entails taking low, sub-hallucinogenic doses of psychedelics, which are usually one-tenth of a hallucinogenic dose. For example, a microdose of LSD would be between 10 and 20 µg.

While this practice is growing in popularity, there is very little research to support the validity of certain claims, which include improved cognition, productivity and mood.

Amanda Feilding and her research partners are seeking to uncover more information, both to assist with harm reduction among those microdosing in their daily lives and most importantly, to support the evidence base for the introduction of possible psychedelic medicines.

<table>
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<tr>
<th>THE BECKLEY MICRODOSING RESEARCH PROGRAMME MAIN TARGET AREAS</th>
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Lifting the Lid on LSD: Microdoses

Our Groundbreaking Microdosing Study Results

- **Microdoses of LSD enhance neuroplasticity in humans**

  Given the interest in BDNF (Brain-derived neurotrophic factor) as a key neuroplasticity marker in several neurodegenerative and neuropsychiatric disorders, our Beckley/Maastricht microdosing dose-finding study included, among other measures, that of changes in BDNF plasma levels following low doses of LSD (5, 10, and 20 µg) or a placebo, in healthy volunteers.

  The findings demonstrated an increase in BDNF starting 4h after LSD administration, that was proportionate to the dose of LSD administered. Considering that low BDNF levels have been associated with numerous conditions such as depression, Alzheimer’s, diabetes and eating disorders, this remarkable result warrants studies in patient populations.

  ![Graph showing changes in BDNF](image)

- **Microdoses of LSD improve mood and vigilance**

  Our results also demonstrated that small doses of LSD - particularly the highest dose we investigated (20 µg) - significantly enhanced positive mood as well as vigilance in our group of healthy participants, an effect that we are hoping to reproduce in clinical populations (e.g., depression, Alzheimer’s, palliative care).

- **Microdoses of LSD enhance tolerance to pain**

  Our study also indicated that at 20 micrograms, LSD significantly reduced pain perception and enhanced tolerance to pain, a result that warrants further research into the analgesic potential of LSD microdosing. Following our international survey, which confirmed that people suffering from chronic pain experience benefits from psychedelics (both in macro and microdoses), we are now conducting an app-based remote microdosing study to investigate this in more depth.
COVID-19 has come with many challenges to research, but also brought many opportunities. Virtual research constitutes a new way of conducting science, with access to a much larger number of participants for a fraction of the cost of lab-based studies. Concerns over the quality of the data collected this way are becoming obsolete, as new wearable technology is developing at a fast pace.

Amanda Feilding and her team are very excited to be part of the first international, multi-disciplinary research collaboration dedicated to microdosing, alongside Paul Stamets, Pam Kryskow, Zach Walsh and other researchers from the University of British Columbia and Maastricht University, in what will most likely be the largest remote microdosing study to date.

Powered by Quantified Citizen, a mobile health research platform that is hosting the world’s first mobile microdosing study, we’ll gather knowledge on a wide range of microdosing practices and how they affect mental health, cognitive performance, and more.

Nested within this large research project, the Beckley Foundation has initiated and, alongside collaborators, developed more targeted studies focusing on specific uses of microdosing. We are launching two new studies in 2022, with more to come later.

**Microdosing and meditation**

Does the practice of meditation influence the psychedelic experience? And does the use of psychedelics influence meditation practice? In this new study, we will explore the effects of microdosing on meditation practice by remotely collecting data in meditation practitioners.

**Psychedelics and chronic pain**

Do chronic pain sufferers experience noticeable benefits from regular microdosing and/or from the occasional use of large doses of psychedelics? This study will collect data from chronic sufferers in order to guide the development of clinical research.

**HOW TO PARTICIPATE?**

To find out how to enrol on these and other studies, scan the QR code or visit [www.beckleyfoundation.org/beckey-quantified-citizen/](http://www.beckleyfoundation.org/beckey-quantified-citizen/)
A Double-Headed LSD Research Programme

**Part I**
First in-depth investigation of the biological and psychological phenomenology of the psychedelic and mystical experience using cutting-edge neuroscientific tools, with full dose LSD

**Project 1**
Personalised 7-Tesla MRI and MEG of LSD-induced mystical experience

**Project 2**
Multimodal neuroimaging (fMRI, PET, Kernel flow, EEG) of LSD in humans

**Project 3**
Microscopic evaluation of the vascular and neural effects of LSD

**REVOLUTIONISING PSYCHEDELIC RESEARCH**
WITH CUTTING-EDGE NEUROIMAGING TOOLS FOR A DEEPER UNDERSTANDING OF THEIR MECHANISMS OF ACTION
Part II

Exploration of a range of applications for LSD microdosing in ageing and palliative care: from clinical research to the development of a New Concept of Care Homes

- **Project 4**
  First clinical trial of LSD microdosing for Alzheimer’s and other forms of dementia

- **Project 5**
  A set of pre-clinical studies on the impact of psychedelics on Alzheimer’s

- **Project 6**
  Evaluating the effects of psychedelic microdosing in palliative care

**Developing new treatments and a new model of care homes for cognitive decline, dementia, and other conditions**
High impact outcome

This project will leverage recent developments in precision neuroimaging to produce the first ever personalised brain images of an individual undergoing an LSD-induced mystical experience, with an unprecedented degree of granularity. A better understanding of the subtle changes of brain states occurring at the time of deep existential and transformational insights will significantly improve our understanding of the neurobiology of consciousness and of how LSD may be used as a tool for both personal growth and therapy.

Project highlights

- First-time use of precision fMRI in psychedelic research
- First ever psychedelic neuroimaging study using high-resolution MRI (7 Tesla instead of the commonly used 3 Tesla)
- Combining fMRI with MEG
- Fine-grain assessment of the subjective psychedelic experience
- Collaboration with a team of world-renowned neuroscientists from King’s College London and UCL

The importance of the mystical experience in psychedelic-assisted therapy

In the first clinical study of psilocybin-assisted therapy for treatment-resistant depression, carried out by the Beckley/Imperial team, we found, for the first time in the history of psychiatry, that the mystical experience – a non-denominational sense of connection or unity – lies at the very heart of treatment efficacy.

Patients who demonstrated the greatest improvement in their depression scores (See graphic: blue line – 9 responders) were those who had undergone a greater mystical experience during the psychedelic intervention. Lower ‘peak’ experiences were reported in those with weaker therapeutic response (red line - 10 ‘non-responders’).

A better understanding of the mystical experience phenomenology is therefore essential in order to fully tap into the transformational power of psychedelics.

**Responders vs non-responders to psilocybin at 5 weeks**

Beckley/Imperial Research Programme
Project 2: Multimodal Neuroimaging of the Psychedelic Experience

High impact outcome

This project will explore in parallel, for the first time, the various physiological underpinnings of the psychedelic experience, from changes in cerebral blood volume and flow, glucose metabolism, and blood-oxygenation level; to changes in electrical activity and connectivity. This will considerably improve our understanding of the mechanisms of action of psychedelics at multiple biological levels.

Project highlights

- First multimodal imaging of the psychedelic experience for a more thorough than ever understanding of the mechanisms involved (PET, fMRI, EEG, MEG, and functional near-infrared spectroscopy [fNIRS])
- First parallel assessment of the effects of LSD on neural activity, cerebrovascular function and energy metabolism
- Comparison of microdose and full dose

Multimodal imaging: looking at the brain under multiple lenses

**Functional MRI (scanner)**
Measures changes in cerebral blood flow and blood oxygenation in the whole brain with high spatial but low temporal resolution.

**EEG (headset)**
Records the electrical activity on the scalp that represents the macroscopic activity of the surface layer of the brain underneath, with good time resolution but poor spatial resolution.

**PET (scanner)**
Uses radioactive substances to measure changes in metabolic processes and other physiological activities including blood flow, glucose metabolism, neuroreceptor occupancy, etc.

**Functional near-infrared spectroscopy (fNIRS headset)**
An optical brain monitoring technique which estimates cortical hemodynamic activity occurring in response to neural activity, in freely moving people.
High impact outcome

This study, which is the first to investigate the full impact that psychedelics have on the micro-vasculature of the brain's blood supply, could revolutionise the way we understand the mechanisms of action of psychedelics and open the doors to new and exciting therapeutic and creative applications.

Project highlights

- First in vivo images of the effect of psychedelics on microvasculature
- Evaluation of the impact of psychedelics on neurovascular coupling (i.e. the way neurons communicate with the blood vessels that supply them), crucial for the interpretation of fMRI data
- Collaboration with leading experts in micro-vascular and optical imaging techniques to visualise neuro-vascular dynamics in living animals, from Cornell University

A long-held hypothesis which could considerably expand our understanding of the mechanisms of action of psychedelics

In 1966, Amanda met and began working with Bart Huges, a Dutch scientist of exceptional insight. He had recently formulated a theory about the cascade of physiological events that follow the ingestion of a serotonergic psychedelic, such as LSD or psilocybin. The hypothesis posits that a major factor in the underlying changes in the state of consciousness brought about by psychedelics, is the global (and regional) increase in the volume of blood in the brain capillaries, thereby providing extra energy (glucose and oxygen) to regions of the brain that do not normally have access to such a supply. This increase, and redistribution of resources, results in an expanded field of simultaneous activity across the whole brain, and a global expansion of connectivity, which manifests as expanded consciousness.

Amanda has been investigating this hypothesis since then, but only now is brain imaging technology developed enough to measure such changes in capillary blood.

This hypothesis has never been investigated before, and, if proven to be correct, will radically alter the way we interpret and understand the underlying physiology of expanded states of consciousness, and how best we can manage them, in order to optimise their potential benefits.
High impact outcome

This research, which is grounded in solid pre-clinical and anecdotal evidence, offers a new hope for improving the quality-of-life of people suffering from dementia and that of their caregivers, and possibly for slowing, or even reversing the progression of Alzheimer’s disease (AD) and other related forms of dementia.

Project highlights

- First-ever clinical study of LSD microdosing for Alzheimer’s
- Strong pre-clinical and anecdotal evidence to support the study
- Collaboration with distinguished Head of the Geriatrics department at the University of Basel
- Will pave the way to clinical research in this area of high unmet need
- Will inform the development of treatment protocols for Beckley Care Homes

Background

Case study

Last year, Amanda received the most astonishing report concerning a 97-year-old lady (SR) diagnosed with AD and vascular dementia at the age of 88. When her condition deteriorated substantially, her caregiver, with the agreement of her family, decided to determine whether microdoses of LSD might help spring her out of her deep apathetic state. According to SR’s caregiver, the effects were nothing short of remarkable, restoring SR to a full state of awareness, with presence of mind, wit, and personality.

Scientific evidence

Our research has demonstrated the potential for psychedelics, particularly LSD, to increase the expression of proteins involved in the growth of new synapses and to enhance memory and exploratory behaviour in animals. Our microdosing research has also shown that low doses of LSD can increase the level of BDNF, a key protein involved in neuroplasticity, which patients with AD produce at reduced levels. Taken together, our results suggest that LSD could possibly slow or even reverse the effects of AD, even at doses that would not produce strong psychoactive effects.
Project 5: Pre-clinical Research on Healthy and Pathological Ageing

High impact outcome

Using cutting-edge technology, such as cultures of minibrains expressing the pathological hallmarks of Alzheimer’s, this series of pre-clinical studies will shed light on the effects and therapeutic potential of LSD in healthy and pathological ageing at the molecular and cellular levels, and inform the development of valuable biomarkers for clinical trials.

Project highlights

• Understanding the effects of LSD on AD at the molecular, cellular and vascular levels will guide future clinical research and interventions
• Growing Alzheimer’s minibrains and testing the effect of LSD
• First investigation of the effects of LSD on neuro-inflammation
• First investigation of the effects of LSD on longevity in an animal model of ageing
Project 6: Microdosing to Improve Quality-of-life in Palliative Care

High impact outcome

Our research has demonstrated the benefits of microdosing psychedelics for mood, vitality and pain management, suggesting a strong potential to significantly and positively impact quality-of-life in people receiving palliative care, who often suffer from demoralisation, anxiety, apathy and lack of life enjoyment (anhedonia), along with physical pain.

By evaluating the benefits of microdosing in terminally ill cancer patients in a patient-centred way, this study will pave the way to the development of a new model of palliative care homes. This study is also the first psychedelic study to take place in an Afro-Caribbean population with terminal cancer.

Project highlights

- First psychedelic research project focusing on the African diaspora
- Personalised approach with a titration procedure to adjust the dose to each participant’s needs
- Use of a remote research platform to ease participation process
- Use of locally sourced psilocybin mushrooms

Beckley Care Homes

Grounded in both reason (scientific evidence) and compassion, Beckley Care Homes aim to create a new paradigm in care for the elderly and dying, where active patient-centred care will be combined with integrative treatments and therapies conducive to personal development and psychological and physical wellbeing.

Beckley Care Homes will initially be based in countries with a favourable regulatory environment, and/or where ‘Compassionate Use’ programmes acknowledge the needs of suffering individuals, and allow them to legally access psychedelic-assisted therapies and treatments.
BECKLEY/IMPERIAL RESEARCH PROGRAMME
Co-directed by Prof David Nutt & Amanda Feilding
Psilocybin with psychological support for treatment-resistant depression: an open-label feasibility study (2016), Carhart-Harris RL, Bolstridge M, Rucker J, ...Feilding A, ... Nutt DJ, The Lancet Psychiatry
Neural correlates of the LSD experience revealed by multimodal neuroimaging (2016), Carhart-Harris RL, Muthukumaraswamy S, Roseman L, Kaelen M, ..., Feilding A, Nutt DJ, PNAS
Neural correlates of the DMT experience assessed with multivariate EEG (2019), Timmermann C, Roseman L, ..., Nutt DJ, Carhart-Harris R, Scientific Reports
Psilocybin with psychological support for treatment-resistant depression: six-month follow-up (2018), Carhart-Harris RL, ..., Feilding A, Taylor D, Curran HV, Nutt DJ, Psychopharmacology (Berl)
Increased amygdala responses to emotional faces after psilocybin for treatment-resistant depression (2017), Roseman L, Demetriou L, Wall MB, Nutt DJ, Carhart-Harris RL, Neuropsychopharmacology
Neural correlates of the psychedelic state as determined by fMRI studies with psilocybin (2012), Carhart-Harris RL, Erritzoe D, Williams T, ..., Feilding A, Wise R, Nutt DJ, PNAS

BECKLEY/SANT PAU RESEARCH PROGRAMME
Co-directed by Jordi Riba and Amanda Feilding

BECKLEY/MAASTRICHT RESEARCH PROGRAMME
Co-directed by Prof Jan Ramaekers & Amanda Feilding
Low Doses of LSD Acutely Increase BDNF Blood Plasma Levels in Healthy Volunteers (2020), Hutten N., Mason N., ... Feilding A., Ramaekers J., and Kuypers K., ACS Pharmacology & Translational Science
Me, Myself, Bye: Regional alterations in glutamate and the experience of ego dissolution with psilocybin (2020), Mason, N., Kuypers, K.,..., Feilding A., Ramaekers J., Nature Neuropsychopharmacology

BECKLEY/BRAZIL RESEARCH PROGRAMME
Co-directed by S Rehens, S Ribeiro, L Tofoli and & A Feilding
LSD, madness and healing: Mystical experiences as possible link between psychosis model and therapy model (2021), Wießner I, Falchi M, Palhano-Fontes F, Feilding A, Ribeiro S, Tófoli LF, Psychol Med.
LSD and creativity: Increased novelty and symbolic thinking, decreased utility and convergent thinking (2022), Wießner I, Falchi M, ..., Feilding A, Ribeiro S, Araujo DB, Tófoli LF, J Psychopharmacol.

COLLABORATION WITH JOHNS HOPKINS UNIVERSITY
The Beckley Foundation Scientific Advisory Board includes leading international scientists on the topics of consciousness, neuroscience, biochemistry, psychiatry and psychology.
“Through my LSD experience and my new picture of reality, I became aware of the wonder of creation, the magnificence of nature and of the animal and plant kingdom. I became very sensitive to what will happen to all this and all of us.”

Dr Albert Hofmann
The Beckley Foundation’s first Scientific Advisor

“Use them with care, and use them with respect as to the transformations they can achieve, and you have an extraordinary research tool. [...] They’re not addictive, and they’re certainly not escapist, either, but they’re exceptionally valuable tools for understanding the human mind, and how it works.”

Dr Alexander Shulgin
An early member of the Scientific Advisory Board
Global Reform

The ‘War on Drugs’ continues to cause worldwide devastation. Prohibition costs taxpayers billions each year, yet policies have failed to eliminate drugs, instead increasing the risks and harms associated with their use. Unregulated and mired in criminality, the illicit drugs trade is now worth over $350 billion a year, and is associated with escalating violence, corruption, incarceration, and suffering. To catalyse the change in global drug policy, one of Amanda’s two foundational aims in setting up the Beckley Foundation was to release psychedelic compounds from the grip of misinformed policy, by building a scientific evidence base on which to build balanced alternatives to the prohibitionist approach.

Over the last 20 years, Amanda has been at the forefront of global drug policy reform, and her contribution has been pivotal and widely recognised. Amanda has been involved in advisory work around the world, including the UN for many years, the EU Parliament, and Latin America and the Caribbean, including Mexico, Colombia, Guatemala and Jamaica, and has given talks at the Organization of American States, Capitol Hill, and Vienna among other places. She has collaborated with international scientists, politicians, and other experts to explore key issues at influential seminars and produced a range of seminal books, reports, and papers, which have been instrumental to the growing engagement in drug policy and progress towards reform. As a culmination of Amanda’s many achievements, in 2007, the Beckley Foundation was granted Consultative Status by ECOSOC, becoming a UN-accredited NGO. Covering vast domains of global drug policy, Amanda has brought to public attention the lingering impact of prohibitionist policies and has opened avenues for alternative policies that promote public health and human rights, reduce drug-related crime, and dismantle the barriers to scientific research.

Policy Publications

The Foundation has produced over 40 books, reports, and briefing papers on global drug policy issues, which have had a strong role in influencing the UN and various governments and states in their moves towards reform, particularly the seminal report on cannabis, titled: ‘Moving Beyond Stalemate’. Our publications present a thorough review of the impact of current prohibitionist policies and shed light on many previously obscured areas of this complex issue, while opening up the avenues for alternative policies.

We present alternatives to prohibition that:

- Promote public health and human rights
- Reduce drug-related crime, violence and corruption
- Enable governments to gain control of, and profit from, one of the world’s largest economies
- Dismantle the barriers to scientific and medical research
Society & Drugs: A Rational Perspective (2002 - 2011). This series of 11 highly influential seminars, held at the House of Lords, brought together, for the first time, eminent politicians, scientists, policy-makers, and other experts to discuss key policy issues at the national and global levels. Out of these discussions came a series of policy reports and books that laid the foundations for global drug policy reforms which are currently taking place. The seminars also paved the way for our ongoing policy programme which has included the following initiatives:

- The founding of two leading organisations: the International Drug Policy Consortium (IDPC) and the International Society for the Study of Drug Policy (ISSDP). These were both founded by Amanda Feilding and Mike Trace as part of the Beckley Foundation Policy Programme and launched at the Beckley Foundation Seminar of 2004. Since then they have become independent and influential organisations.

- The Beckley Foundation Global Cannabis Commission was initiated by Amanda in 2006, and launched in 2008 with the report Cannabis Policy: Moving Beyond Stalemate. This report was the first of its kind and has been extremely influential in the regulation of cannabis at UN and national levels. It was later co-published by Beckley Foundation and Oxford University Press.
The Beckley Foundation’s International Advisory Work. Amanda was invited by both the Guatemalan and Jamaican governments to advise them on drug policy reform. This included writing two reports for the President of Guatemala, Otto Perez Molina, one entitled *Paths to Reform*, which the president used at the UN and other international meetings. In Jamaica, Amanda worked closely with the Minister of Justice and the government in the implementation of a regulated cannabis industry.

Amanda has also been involved in advisory work around the world including Mexico and Colombia and the UN for many years.

(2010) Amanda Feilding launched ‘The Global Initiative for Drug Policy Reform’ at a Beckley Foundation seminar, in collaboration with the All-Party Parliamentary Group for Drug Policy Reform (which Amanda helped instigate), which was attended by Heads of State. It consisted of bringing together high-level representatives from countries who had undertaken reform, such as Portugal, the Czech Republic, and Switzerland; countries interested in reform; and representatives from the Global Commission on Drug Policy Reform. Amanda Feilding commissioned two new reports for the Commission: *Roadmaps to Reforming the UN Drug Conventions*; and *Towards a Cost Benefit Analysis of a Regulated and Taxed Cannabis Market in the UK & Wales.*

The Beckley Foundation joined two international coalitions in 2022 as a founding member, in order to pool resources and campaign for further global policy change: the International Therapeutic Psilocybin Rescheduling Initiative (ITPRI) is a global coalition working to promote and secure a rescheduling of psilocybin under the 1971 Convention on Psychotropic Substances, while the Psychedelic Access and Research European Alliance (PAREA) is a multidisciplinary partnership campaigning for integration of psychedelic medicines into European mental health services.

Licensing and Regulation of the Cannabis Market in England and Wales: Towards a Cost-Benefit Analysis (2013) was the first report to quantify the fiscal and social benefits of a regulated and taxed cannabis market.