





Winning External Research Funding

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Overview of Workshop

- 1. Previous grant writing
- 2. Application process
- 3. Stages of the application process
- 4. Comparison with unsuccessful bids
- 5. Workshop Task
 - Develop an outline for a new bid (Groups of 5)
 - Prizes

Previous Grant Writing

Research Grants

- Digital Economy Research Council. Research in the Wild Call (£201,000). Development and evaluation of a high-intensity exergame in a deprived area of the North-East. Spears, Batterham, Tang, Azevedo, Crawshaw and Lock.
- Technogym Spa (£10,500). Feasibility study into low-cost motion capture system for use in gym environment (Spears).
- The Leverhulme Trust (£54,829). Biomechanical analysis of carpal bones: Implications for changes from quadruped to biped locomotion (Macho, Spears, Leakey) 2004.
- The Leverhulme Trust (£86,458). Hominoid teeth a functional perspective. (Macho and Spears) 2000.

Partnerships

- Natural Environmental Research Council (£180,500). Dietary adaptations of extant primates and Plio-Pleistocene hominids: Masticatory biomechanics and teeth. (Macho [Spears named as sole collaborator]).
- German Research Council (£89,500). The effect of patient activity on the micromotion in cementless acetabular cups: Optimisation of the conditions required for boney ingrowth. (Morlock, Hille and Schneider [Spears named as international collaborator], 2001).

Previous Grant Writing

Rejected

EPSRC: Fifth metatarsal fractures in footballers (2009)

EPSRC: Stresses on the perineum during cycling (2007)

EPSRC: Enamel microstructure: testing to destruction (2004)

EPSRC: A three-dimensional model of a 2nd molar (2003)

And many more...

Application process

Digital Economy: Research in the Wild Call (EPSRC)

 Looking for projects which build on early research and puts the concept/prototype in an unusual environment (wild)

Stages of the Application process: Existing knowledge

Health Inequalities

- Discussion over health inequalities (scary stats).
- Metabolic Syndrome (potent cardiovascular disease risk factors including diabetes and prediabetes, abdominal obesity, high cholesterol and high blood pressure) is caused, in part, by sedentary lifestyles
 - Worse in males, particularly in deprived areas.
 - If you take a 10 minute walk across Glasgow you see a drop in life expectancy by 15 years.

Stages of the application process: Existing knowledge

- Background Technology
 - DigiTeeser, Tracking of LEDs, Wii Hacks

- Physical Gaming
 - Proven popularity of physical gaming Nintendo Wii
 - Nothing physically demanding (meaningful exercise)

Stages of the Application process: Existing knowledge

- Exercise Intervention
 - High Intensity Interval Training
 - 2 min 3 times a week (huge health benefits for very little effort).
 - "Remarkable" reduction in insulin resistance (Type 2 Diabetes)
 - Massive potential for our population
 - Boxing against resistance bands in an "exergaming" environment

Stages of the Application process: Engagement with partners

- Working Mens and Social Clubs
- Buffs Social Club
- Beechwood and Easterside Social Club

- Primary Care Trusts
- Middlesbrough
- Stockton

Impact

Society: PCTs, FUSE, Gaming Community, Night-time economy

Economy: Computer games companies ,Fitness industry, Local Pubs and Clubs, Pub chains, Potential University spin-out

Knowledge: Technique to monitor energy expenditure,
Technique to capture whole body movements from 3 sensors,
Advanced computational techniques for 3D visualisation,
Techniques to promote high-intensity exercise, Potential
technique to improve metabolic fitness in target-setting.

People: UK Skills shortage, New collaborative venture between project partners and research team, Inward investment

Timescales

Ideas Generation (Jun 2009)

Initial Proposal (Aug 2009)

Initial Proposal Resubmission (Nov 2009)

Full Proposal Submission (Jan 2010)

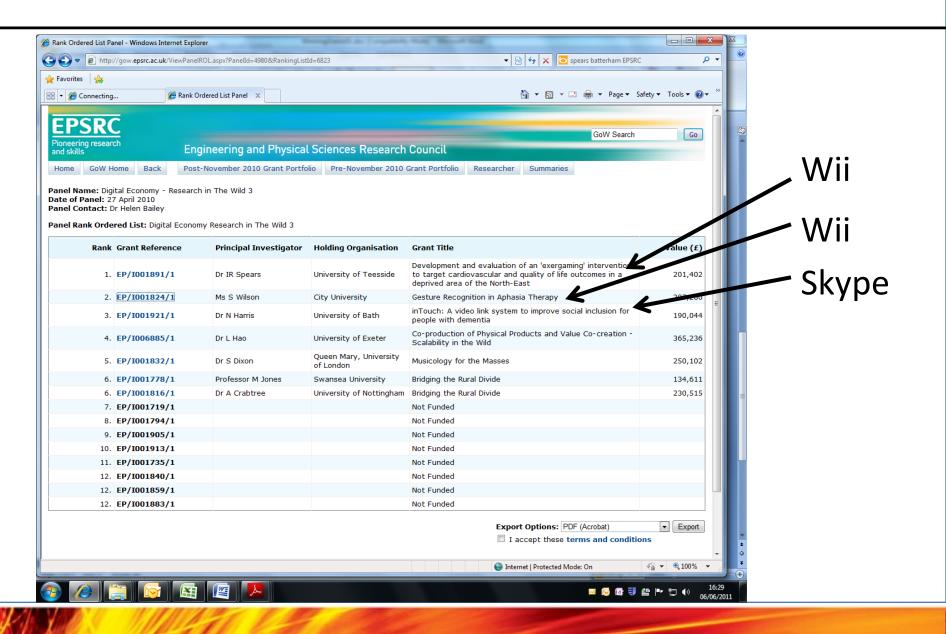
Reviews (Mar 2010)

Response to reviewers (Mar 2010)

Panel Interview (Apr 2010)

Final Decision (May 2010)

Good news!



9 months into the 18 month project

Objectives

3.5 of our 8 objectives have been met

Additional funds

EDF money to create motion capture system HEIF money to support commercialization

Commercial Edge

2 technology licensing deals 3rd in the pipeline

Knowledge

- 2 patents applications
- 4 high quality papers

Fine line between success and failure

Metatarsal Fracture

- Overall, the significance of the research is: GOOD, VERY GOOD, VERY GOOD
- I believe this proposal Could Proceed, Should Proceed, Should Proceed.
- Prioritisation Panel: 17 out of 31

High-intensity Exergaming

- The excellence of this proposal has been demonstrated
- FULLY, FULLY, FULLY, ADEQUATELY
- Prioritisation Panel: 1 out of ??

Success and Failure: Some things which were done differently

- Go for a "Call" mode of funding
 "Are the criteria addressed?" vs "Is this excellent or not?"
- Read and stick to the criteria
- Focus on the project (not yourself).
- Dedicate yourself to the proposal
 - Time out from publishing
- Give value for money
- Use Youtube
- Try and involve a more experienced researcher who is keen on the project (FUSE, PCTs)

Workshop Task: Work up a bid

Problem

- Much of modern technology in use today is specifically designed to help us minimize our energy expenditure.
- Lack of physical activity is a major risk factor for lifethreatening diseases.
- In NE only one in three men meet the minimum exercise recommended

Solution

- New generation of computer games
- HIIT low-volume
- Social Club in a deprived area of the North East of England.

Impact

 We will reverse the negative impact of modern technology and instead, use it to get us moving once again.

Current Calls

- **BBSRC,** High performance sport as a model for the acquisition, retention and retraining of an individual's skill base
- European Science Foundation Research Conference Scheme,
 Proposals invited for high-level research conferences to take
 place in 2013. Scientists or researchers based at European
 universities or research institutes in ESF member organisation
 countries may apply for a grant to organise a single conference
 lasting for three to four days, which may include up to 130
 participants.
- **The Spencer Foundation**, based in Chicago, accepts project proposals from around the world and is interested in the ways in which education, broadly conceived, can be improved.

Workshop Task: Work up a bid

- Problem
- Solution
 - Emerging technology
 - Emerging evidence
- Impact
- Prizes
 - Chocolates,
 - One-to-one help from Lisa Briggs to turn the idea into something bigger,
 - Awarded "Best outline bid" (Teesside University Research Conference, 2011) - URF