

National Institute of Dance Medicine and Science

Enhancing dancers' health and performance through comprehensive support services

The current situation / need:

The UK is currently in the throws of a love affair with dance. On our screens, in studios, on the streets and in our theatres, dancers of all ages, abilities and cultural backgrounds are experiencing the life-affirming, transformative power of this most accessible art form.

Dance from the UK contributes substantially to the cultural and entertainment experiences available to communities worldwide. Our leading dance companies are household names and London is a magnet for the best dance and dancers the world has to offer.

So how do we sustain this success? How do we maintain and improve employability for dancers in the UK and build a thriving dance industry that remains a source of inspiration and aspiration for all?

We need to ensure dancers stay fit and healthy enough to cope with the ever more exciting choreographic challenges thrown their way; that choreographers have their pick of the most talented individuals, unrestricted by injury time-outs; and that dancers are treated as the supreme athletes they are, affording world class, specialist, medical care and performance preparation.

Next steps:

Dance UK has set up a partnership with leading dance medics and scientists at the **British Olympic Medical Institute**, **Trinity Laban Conservatoire of Music & Dance**, the **University of Wolverhampton** and **Birmingham Royal Ballet's (BRB) Jerwood Centre for the Prevention and Treatment of Dance Injuries** in order to take the next major step forward in improving dancers' health, fitness and injury prevention.

In order to significantly address the problem of dance-related injury (80% injured each year according to previous research), this team have designed a large-scale, prospective, epidemiological research project, which is needed to more fully understand the multi-dimensional causes of injury, in different populations of dancers, and the best strategies for preventing and treating them. This 2-year project will be the first of its kind on this scale in dance. Analyses of the data collected will enable us to develop injury prevention and fitness programmes, monitor their effectiveness, and make specific recommendations to individuals, companies, as well as to the dance sector at large, which will help to improve dancers' health and performance.

Our aim is that the research will lead to the establishment of a **National Institute for Dance Medicine and Science**, consisting of specialist centres where resources are pooled so that all dancers, including those working in the small and medium scale, can effectively 'share' teams of dance medicine and science practitioners. This will be a significant advancement for dance, profoundly impacting dancers' lives throughout the UK by providing comprehensive, evidence-based, medical and dance science services that are more economically viable and on a par with those enjoyed by our Olympic Athletes.

In summary this project will:

- **radically improve our understanding of the relationship between dance, health and injury**
- **enhance healthcare provision and dance science support for dancers working and training in the UK**
- **provide the opportunity for knowledge exchange across the fields of dance and sport**
- **provide important new knowledge for medical practitioners and dance teachers working with millions of professional and amateur dancers across the UK and abroad**

The research project – an overview

Devised by Dance UK in partnership with leading sports and dance medicine and science experts at four other major institutions, the British Olympic Medical Institute, Trinity Laban Conservatoire of Music & Dance, the University of Wolverhampton and Birmingham Royal Ballet's (BRB) Jerwood Centre for the Prevention and Treatment of Dance Injuries, this will be the largest and most comprehensive research project of its kind investigating dancers' health and fitness and the causes and treatment of injury.

In order to undertake the research, the partner organisations will create the first 'hubs' of the National Institute of Dance Medicine and Science, based in London and Birmingham. A medical officer, two physiotherapists and two full time researchers will be based at these centres, serving as the frontline staff for the project. This is necessary in order to be able to study dancers from different styles and employment situations who've never been studied in depth before due to a lack of access to the expertise required to accurately record data on their health and injury status.

A core group of 100 professional dancers will have access to the full range of dance medicine and science services at the project's partner institutions for the duration of the research (2 years). They will be 'screened'/'profiled' at least twice a year. The screening/profiling will comprise previous injury and health information, fitness testing, biomechanical and muscular function, nutritional and psychological health assessments. The circumstances (including workload) around injuries the dancers incur over the course of the research will also be recorded on a central, internet-based database. Medical practitioners will record details of the injury, and add information on the diagnostic investigations used and treatment given over the course of the rehabilitation process. They will also note the dates on which the dancer is able to progress to various stages of renewed dance activity. An additional 300+ dancers at participating companies and training institutions (who may have their own healthcare support but wish to join in and benefit from the research support given by this project) will also have their health and injuries monitored over the same two-year period.

At the end of the first year, findings will be used to develop appropriate training and injury prevention intervention strategies with individual dancers and their companies. These will be implemented in the second year of the project. At the end of the second year another comprehensive analysis of the data will take place revealing the effectiveness of specialist injury treatment, prevention and supplementary training measures and the difference this makes to recovery times and time loss due to injury.

This is a unique partnership project, inspired by London 2012, that builds on existing expertise and will strengthen the links between dance and sport, explore the feasibility of dance and sport sharing facilities where appropriate, and improve the knowledge transfer between sports and dance medicine and science to create a lasting positive impact on both dancers' and sports men and women's health and performance, a true Olympic legacy.

The outcomes

1. Greater understanding of the causes, incidence and severity of dance injuries.
2. Establishment of a comprehensive tool for the documentation and tracking of injuries in order to estimate injury risk and monitor effectiveness of interventions.
3. New evidence of the optimum types and quantities of specialist healthcare and dance science interventions needed to prevent injury and minimise time loss due to injury.
4. Knowledge of the infrastructure needed to effectively provide dance medicine and science support for all dancers long term.
5. Deeper insight into how dance and sport can effectively share medical and scientific resources, knowledge and expertise for the benefit of participants from grass roots to elite.

Project costs

Staffing and project management costs	£321,000
Medical costs – insurance, routine consumables, and overheads	£170,480
Screening / profiling	£17,500
Injury surveillance database	£13,500
Dissemination of findings	£21,000
Total expenditure	£543,480

Support for the project

Roanne Dods, former Director of the Jerwood Charitable Foundation said: *"We expect our dancers to operate as elite performers and artists. To do this we need to work rigorously and scientifically to help them develop physically throughout their careers. This initiative has been designed with the best minds in the field, and has the potential to transform the lives of dancers and their ability to live up to our expectations in ways that are inspiring, effective, and healthy. I am extremely pleased that we have been able to be the first to commit to what will be an exceptional initiative."*

The project has drawn attention from the highest levels both of government and the dance world. All the political parties have sent messages of support, The Rt Hon Tessa Jowell MP, Minister for the Olympics said, *"This is exactly the type of project that we hoped the London 2012 Olympics would inspire: A dynamic and ambitious partnership project which brings the Sports and Dance worlds together."*

In the process of researching and developing this project over the last 3 years, more than 300 individuals representing 90 leading dance organisations from across the sector have been consulted and we have received unanimous, overwhelming support for it.

Bonnie Langford, summed up the overwhelming support from the dance sector for the project, *"I think this scheme and the plan to have a network of healthcare professionals who understand and specialise in dance to contact is brilliant. Having Sharon [experienced dance / sports physiotherapist] on board for Dancing On Ice was a revelation to me. Having always worked as an independent dancer / performer that luxury is one that I have rarely encountered. She literally kept us all going! I really think it is excellent and timely that at last dancers are being elevated to the level of sportsmen and women."*

Roger Wolman, a consultant rheumatologist in dance, sport and exercise medicine at the Royal National Orthopaedic Hospital, London, and an adviser to Dance UK, said, *"Dancers frequently do not get early access to top class medical advice and treatment. This is due to lack of financial support and difficulty accessing the NHS. The [research project] will address these problems for a group of dancers and should provide the evidence of the cost effectiveness of this approach."*