

**International Mechanical Diagnosis and Therapy Research Foundation (IMDTRF)
PROGRAM DETAILS**

Introduction

This foundation is seeking small grant applications to further research into the usefulness and limitations of Mechanical Diagnosis and Therapy (MDT). Consideration will be given to proposals examining basic and clinical sciences with the ultimate aim of improving the quality of care for musculoskeletal patients. New investigators are encouraged to apply. These grants will provide support for pilot research that could lead to submission of subsequent larger grant applications. Preference will be given to proposals that include functional outcomes assessments. Proposals will be subjected to a peer-review process and only the highest quality projects will receive funding.

Requested amounts should be at a minimum \$2,000 and a maximum \$10,000. Funds are for work to be performed, not for works in progress or already completed. All correspondence is with the principal investigator (PI). Grants are awarded for one year only.

Background

Spinal musculoskeletal problems are extremely common in the adult population. In fact, it is estimated that more than 80% of adults will experience an episode of low back pain during their lifetime. Behind the common cold, back pain is the second most common reason people visit their doctor. These problems account for considerable reduction in functional ability and work loss. The personal and societal cost is immense. The natural history of these problems is often not benign with many people having persistent symptoms for many months and recurrences being extremely common.

Current treatments for spinal conditions are linked to a myriad of theories and various interventions often related to causation. Spinal pain can be and is managed by multiple health care professionals including family practice, rheumatologists, physiatrists, neurologists, physical therapists, chiropractors, orthopaedists, and neurosurgeons, to name a few. Too frequently the chosen method of treatment among the groups is not compatible with each other leading to confusion with patients and poor outcomes.

As a result, world-wide clinical practice guidelines have been developed in an attempt to standardize treatment recommendations for patients suffering from spinal musculoskeletal dysfunction and pain. In this system, the majority of patients with neck and back pain are classified into one large homogenous group labelled as non-specific spinal pain. This classification leads to the recommendation by present guidelines of a "one-size fits all" treatment for this large group. However, a disconnect exists between the clinical practice guidelines and everyday clinical practice. Specifically, practitioners have noted relatively poor patient outcomes using a one treatment approach for the non-specific spinal pain categorization. Instead, better treatment outcomes have been reported when the large group is subcategorized and treatment is tailored to that subgrouping.

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While subgrouping is acknowledged by the clinician as important, there is no agreement on how best to identify and manage these subgroups. MDT is an assessment and classification system for musculoskeletal problems that governs treatment recommendations. In MDT, patient self-care and empowerment are essential to the management interventions used. Through the use of specific exercises and postural concepts, the patient learns how to manage their musculoskeletal pain both on this occasion and for future episodes. Since epidemiological studies demonstrate high prevalence and recurrence rates for musculoskeletal symptoms, self-management emerges as a critical tool for the patient. Of key importance is the phenomenon of centralization, which describes the lasting abolition of leg symptoms in response to repeated movements and sustained postures. Medical interest in centralization has increased because of its reliability and strong discriminative and prognostic ability.

Although the concepts and ideas that underpin MDT are supported by the scientific literature, there are clear gaps. Well-designed studies are needed to further explore issues of reliability of evaluation and classification systems, prognostic validity of diagnostic categories, treatment effectiveness and efficacy, longitudinal outcome studies, and comparisons of treatment paradigms. Other project proposals could include the integration of basic sciences with clinical observations.

In addition, outcome measures are a critical component of all projects. For success in funding, proposals will need to include self-reported and/or physical performance outcome measures of functional abilities.

Eligibility

Only individuals can apply for grants. Individuals are encouraged to network with other clinicians and researchers to develop and complete projects at single or multi-clinic sites. Individuals are allowed to submit more than one application as long as each application is distinct.

Grant agreement

All applicants receiving an award for a research grant are required to submit a final report to the Board of IMDTRF summarizing data collection and results. This final report must be received by the Board within 2 months of the annual completion date of the funding award.

It is expected that the PI will prepare a manuscript for publication in a peer-reviewed journal within one year following project completion. It is also expected that:

- a poster or platform presentation will be submitted for consideration of either The MDT Conference of Americas or The International MDT Conference
- the proposal abstract will be published in the International Journal of Mechanical Diagnosis and Therapy.

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If a grant is awarded the funding source should be cited in all publications and presentations resulting from the award.

If the PI fails to return a final report to the Board of IMDTRF or fails to implement the proposed project, the PI will be requested to return all funds distributed to them. This policy goes into effect six months past the due date of any delinquent report or the expected starting date of the project.

If the PI expects that the project will not be finished by the proposed completion date, the PI must petition electronically for an extension to the Board of IMDTRF. The Board must receive this petition at least 2 months prior to the expected completion date. An extension will not exceed more than 1 year and will not include any additional funding.

Instructions

To apply, please complete the required application forms found at www.MDTresearchfoundation.org and attach all required materials. Submit all materials to info@mdtresearchfoundation.org. Only electronic submissions will be accepted.

- To be considered for review, submissions must be received by 17.00 Greenwich Mean Time on June 1st. **Late submissions will be returned without review.**
- The PI will receive electronic notification by July 1st for proposals that have adhered to the submission guidelines and have been referred on to the study section peer-review process.
- All PIs will be notified of award status by November 1st.
- Applicants must notify Board of IMDTRF of acceptance of funds by December 1st.
- All awarded applicants must provide evidence of project approval by an Ethical Review Board before funds are dispersed.
- Project commencement will be January 1st.

PROPOSAL SELECTION PROCESS

Initial screening

The initial screening is performed by the Secretary of the Board. This initial screen determines if the applicant has fulfilled all requirements detailed in the research program announcement and submission guidelines. Reasons for rejection without further consideration:

- Incomplete or late submissions
- Submissions that do not adhere to the GRANT APPLICATION INSTRUCTIONS
- requests for funds less than \$2,000 or more than \$10,000
- projects that are not related in anyway to the mission statement

Revised applications must have a one-page summary of changes suggested by the study section. Only two re-submissions will be allowed.

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Study section/peer review process

The study section will review and rate all grant proposals based on the following criteria:

- *Significance* – the extent to which the research project makes an original and important contribution to the body of evidence related to the usefulness and/or limitations of MDT

- *Research design* – the extent to which the conceptual framework, design, methods, and analyses are properly developed, well integrated, and appropriate to the specific aims of the project

- *Feasibility* – the likelihood that the proposed research project can be completed by the PI given his/her experience, expertise, and resources. It is recommended that the institution or clinic sponsoring the project submits in writing tangible evidence that may ensure the completion of the project.

Finance Committee review

Following the Study Section's review, the Finance Committee, chaired by the Treasurer of IMDTRF, will review the proposed budget requests and will recommend to the Board acceptance or changes to those budgets.

Board of IMDTRF review

The officers of the Board of Directors of IMDTRF have the final review of the proposals and their budgets. The officers will award funding based on the recommendations of the Study Section and the Finance Committee.

DISCLAIMER

PIs submitting applications do so with the understanding that they will abide by the conditions, deadline policies, and decisions of the Board of IMDTRF. The Board reserves the right to change the amount of any awards at its sole discretion. The Board of the IMDTRF makes no guarantee that requested grants will be awarded or that if your proposal is accepted you will receive the total amount of funds requested.

CONTACT INFORMATION

Questions regarding the application process can be directed to info@mdtresearchfoundation.org.