

# Viewpoints

## MEASURING THE IMPACT OF FUNDING ORGANIZATIONS

Quantifying the Research Supported by the Telethon Foundation

A conversation with Chief Scientific Officer, Dr. Lucia Monaco



# INTRODUCTION

The Telethon Foundation is an Italian charity that supports biomedical research related to muscular dystrophy and other rare genetic diseases. Founded in 1990, the charity's mission is to advance scientific research towards cures and clinical treatment, but the path to any cure is slow and requires incremental research. It is critical that funding organizations measure their impact and adjust their strategy accordingly. *Does our review process identify strong proposals and principal investigators? Are we ultimately able to foster research that contributes significantly to the field?*

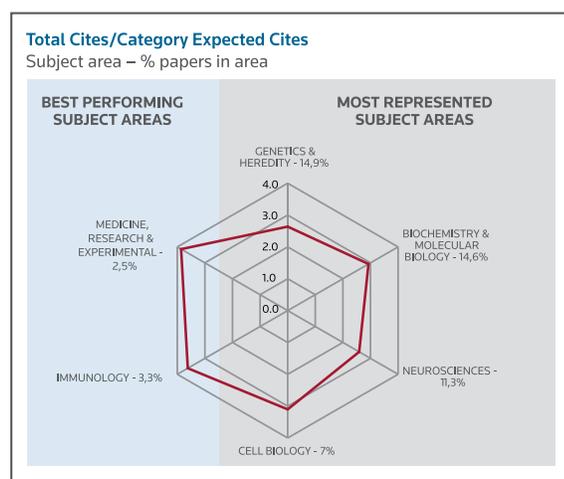
As a charity for scientific research, Telethon needs to track and communicate the impact of the research it supports to a variety of internal and external stakeholders. Citations are the most common currency in scientific literature—the more citations a paper receives, the greater its scientific impact. Dr. Lucia Monaco, Chief Scientific Officer at Telethon, reviews the unique ways in which funding organizations can apply citation data to meet their objectives and how the *InCites*™ platform helps realize this potential.

Telethon has been using citation data from Thomson Reuters to assess impact for nearly ten years. At first, Thomson Reuters and Telethon collaborated on customized data deliveries. After great success and feedback from its constituents, Telethon signed on for *InCites* in November 2010. As was the case with Telethon, funders often want the data in the *Web of Science*™, but they do not need the research and discovery tools that come with an institution-wide subscription. This is where the *InCites* platform comes in, with an interface built specifically for administrators who require *Web of Science* data for reporting, benchmarking, and decision-support.

Telethon is now using *InCites* to reach a number of audiences and objectives, from internal portfolio management to donor development. The platform's reporting and visualization tools allow funders to track papers they've supported from many angles. Funders can also track their contribution on the national and international levels, or benchmark against peers and other leading institutions. *InCites* also includes a host of metrics Thomson Reuters has developed to interpret and apply citation data. "Many of us at Telethon are former scientists, and we value quantitative criteria such as citation data to assess scientific performance" says Dr. Monaco. "After the *InCites* platform was introduced, we saw an opportunity to deepen our analyses and create our own custom approaches to the data."

## PORTFOLIO MANAGEMENT

"We use the subject analysis in *InCites* to help manage our research portfolio. The data allows us to see our strengths and identify investment opportunities to pursue. Because the subject-level data is normalized by field, we can compare output in unique and interesting ways. For example, we prepared a custom graph (Figure 1) based on *InCites* data for the six most relevant subject areas and found that although Telethon-funded scientists produced fewer papers in 'Immunology' and 'Medicine, Research & Experimental,' these papers yield high citations in their respective fields. This is especially significant since those two fields include a greater clinical component than others—converting the results of high caliber research into available therapies is central to Telethon's mission moving forward."



**Figure 1.** Analysis by subject area enables strategic assessment and management of the research portfolio.

Custom graph created by Telethon based on *InCites* data 1991-2010.

\* This ratio reflects citation impact in a specific subject area.

# "IT IS CRITICAL THAT FUNDING ORGANIZATIONS MEASURE THEIR IMPACT AND ADJUST THEIR STRATEGY ACCORDINGLY."

## EXTERNAL COMMUNICATION

"The Global Comparisons component of *InCites* allows us to easily place our research in the international context. In the basic impact metric of citations per paper, Telethon consistently ranks above Italy, the European Union, and the United States (Figure 2). This has been very well received by newspapers and other public-facing media, and is now a strong asset in our communication strategy, aimed at making the general public aware of the outcome of their donations. We've also incorporated international comparisons into our newsletters and bulletin—I think the graphs go a long way in showing people how a small organization can still yield impressive results with the right strategy and review process."

## INTERNAL REPORTING

"For an organization like ours, which needs maximum flexibility to manage a complex portfolio of research investments, it is critical that we quantify each program's success to our governing bodies. For instance, in the case of the Dulbecco Telethon Institute, our career program that funds young researchers, we were able to track progress over time and use citation data to demonstrate a steady increase in the quality of research output. The findings confirmed the strategic value of our investment; in addition, it helped us attract dedicated funding for the initiative."

## STREAMLINING THE ANALYSIS

Telethon has always been forward-thinking about bibliometric analysis. When Telethon first approached Thomson Reuters in 2003, it had already built an

internal database of articles the charity funded. "We invested internal resources to set up the database of Telethon articles and maintain it going forward. We worked with Thomson Reuters to populate it with citation data every year."

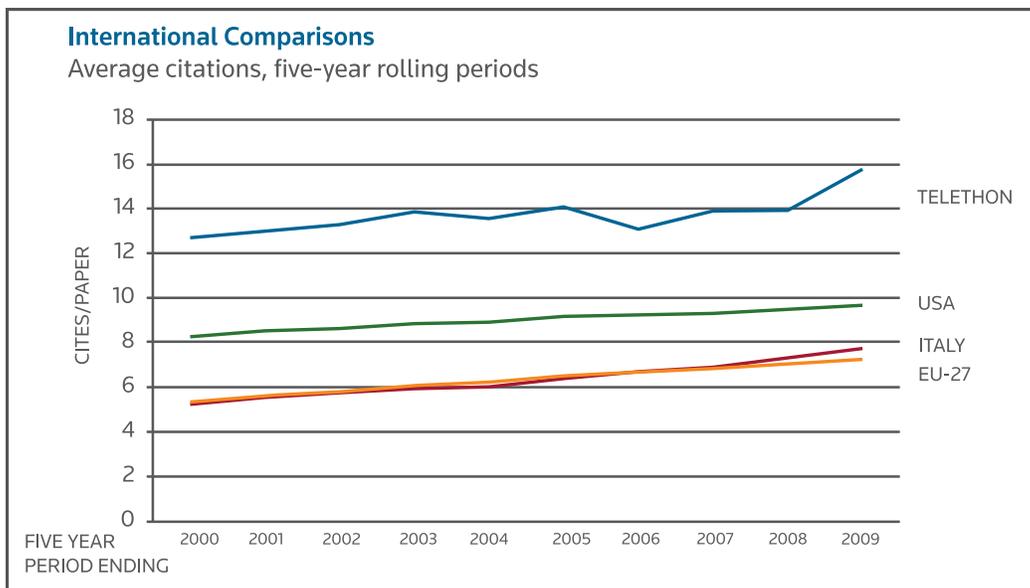
## FUNDING ACKNOWLEDGMENTS

In 2008, the *Web of Science* started to include funding acknowledgments in its citation records, making it much easier for funders to identify their articles. But a key challenge remained: the charity needed to manually run its sophisticated bibliometric analyses. When *InCites* was introduced, it brought Telethon's citation data together with powerful tools and metrics, while ensuring that citation counts and linkages were automatically updated.

"Through *InCites* we had the opportunity to streamline our workflow and optimize our bibliometric analyses. We can now incorporate data on nations or peer institutions, and prepare reports for strategic investment with the most current information. We are looking forward to developing more sophisticated analyses to support Telethon's activities."

Figure 2. Trend data for papers in Molecular Biology and Genetics; Clinical Medicine; Biology and Biochemistry; Neuroscience and Behavior; Immunology; Multidisciplinary, covering 96% of Telethon papers.

A metric like citations per paper helps to measure research impact regardless of the size of the entity (e.g., a country versus an institution). This is ideal for measuring the true impact of a specialized organization like Telethon.



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