# HOW DO BIAL FOUNDATION GRANTS TRANSLATE INTO SCIENTIFIC OUTPUT?

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**Background:** Bibliometric indicators are widely recognised as robust tools for assessing the performance, dissemination, and impact of scientific research, provided their inherent limitations are acknowledged. Since establishing its online database in 2014, the Bial Foundation has systematically applied bibliometric analyses to quantitatively monitor outputs from funded projects, complementing the qualitative review of scientific reports.

**Aims:** To systematically assess the scientific performance and impact of projects supported by the Bial Foundation through established bibliometric indicators, thereby providing quantitative evidence of research output, dissemination, and influence.

**Methods:** Research productivity was evaluated through the number of publications indexed in Scopus or the Web of Science (WoS), excluding abstracts. Publication impact was assessed using the *times cited* metric retrieved from the WoS Core Collection in February 2026, considering both total citations and average citations per paper. The Bial Foundation's *h*-index was calculated by combining the number of indexed publications with their citation counts, and Highly Cited Papers (top 1% by field and publication year) were identified. For the first time, field- and year-normalized citation indicators from InCites Benchmarking & Analytics were incorporated, specifically the Percentile in Subject Area, which positions each publication relative to comparable documents by type, field, and publication year, and the Category Normalized Citation Impact (CNCI), which expresses the ratio of observed to expected citations (CNCI > 1 indicating above-average citation performance). Journal performance was assessed using the Journal Impact Factor and, primarily, the quartile rankings provided by the Journal Citation Reports (JCR) to minimize field-related discrepancies; when journals were assigned to multiple subject categories, the highest quartile was recorded. Except for InCites indicators, all results were compared with the previous assessment (February 2024) to identify longitudinal trends in productivity, impact, and dissemination across funded projects.

**Results:** Since 1994, the Bial Foundation has approved 946 projects from 31 countries in the areas of Psychophysiology (480 projects, 51%), Parapsychology (271 projects, 29%) and Interdisciplinary research combining both domains (195 projects, 20%). Of this, 927 projects have been effectively supported; currently, we are supporting 164 projects.
Between 1995 and February 2026, these 927 projects generated 2,839 publications, of which 2,320 were indexed in Scopus or the Web of Science. Compared with the previous assessment in 2024, an additional 363 indexed papers were identified, representing a 19% increase. When excluding the two most recent grant editions (2022/23 and 2024/25), for which most projects are still ongoing, it was obtained a ratio of 2.85 indexed papers per project (2,199 papers from 772 projects); this represents an improvement over the previous ratio of 2.63.
Publications recognizing the support of Bial Foundation have received a total of 63,927 citations, representing an increase of nearly 40% since 2022. Across the portfolio, these publications were cited on average 30 times ($M$ = 30.11; $Mdn$ = 13), ranging from 0 to 774 citations. The Bial Foundation's *h*-index increased from 97 (2024) to 110 (2026). In terms of field-normalized performance, 365 publications (17.41%) are positioned within the top 10% most cited worldwide, according to their field, publication year, and document type (InCites Percentile ≥ 90). Normalized metrics further show that 42% of publications exceed the world average citation impact (CNCI > 1.0). An average CNCI of 1.39 reflects a citation impact 39% above global expectations, adjusted

for field, year and document type. Additionally, 19 publications were classified as Highly Cited Papers.
Of the indexed publications, 2,063 were published in journals with an average Impact Factor of 4.1, slightly lower than the value reported in the previous assessment (4.2). Half of these publications (*n* = 1,040; 50%) appeared in Q1 journals, representing a 3-percentage-point increase compared with the prior evaluation (50% vs. 47%).

**Conclusion:** Over the past two years, the research funded by the Bial Foundation has shown measurable progress relative to the previous assessment cycle, with clear gains in the ratio of indexed papers per project, a pronounced increase in total citations, and a higher proportion of publications appearing in top-quartile journals. Together with strong field- and year-normalized citation performance, these developments indicate a positive and sustained trajectory in scientific productivity and influence.

**Keywords:** Bial Foundation grants, Indexed publications, Citations, *h*-index, Percentile in Subject Area, Category Normalized Citation Impact (CNCI), Impact factor, Quartiles