

ABSTRACT

Analysis of portfolios can occur at many scales; from overviews at the Institute level to individual program analysis. Recently we performed an analysis across all branches in the Division of Extramural Research (DER) and for a subset of programs. This poster illustrates the data and techniques used in the compilation and analysis of this snapshot of grants. The primary utility of our analysis lies in having data "codes" that provide both a coarse and fine-grained description of each unique grant which may not be captured by existing category (RCDC) fields. To achieve this detail, grants were individually hand-coded in Excel or previously coded by NIDCR staff to facilitate tabulation and visualization. The result of the coding was an ordered categorization of major topics such as prevalent diseases or scientific areas supported by NIDCR. At the Division level, a sorted set of 12 diseases and topics for grants awarded in FY13 highlighted shared interests and coverage across different programs; within individual programs, grouped topics by code highlighted gaps and opportunities in the portfolio. The most time-consuming part of analyses was data preparation, namely the addition of detailed descriptors at the microscopic scale to augment the macroscopic topic areas. Utilization of a pre-coded system dramatically decreases analysis time and having these codes available is useful for updating or changing emphases in future analyses.

INTRODUCTION

The mission of NIDCR is to improve the nation's oral health through the understanding of normal and abnormal processes underlying oral, dental, and craniofacial diseases and disorders. To this end, we aimed to see the landscape of NIDCR's projects in their entirety. A more refined look at one particular Program Class Code (PCC) involved additional layers of categories and percent focus of multiple disciplines in one parent grant. This step was necessary as we found it difficult to force one grant into one category. The resulting pictorial representations of the groupings are displayed below.

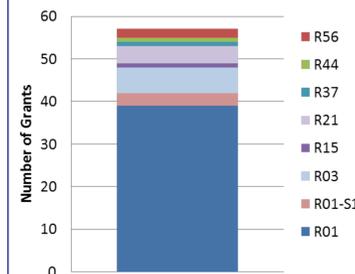
Methods

All grant information and abstracts were obtained through the use of QVR. Each grant within a portfolio was graded manually by reading through the abstract and/or application sections to assign the particular categories to the grant. Categories were predefined by the PO but additions and consolidation was needed *in trans* on occasion. Individual databases or spreadsheets were created containing category information (e.g., disease/topic/condition, tools, processes, basic versus translational, tissue) and pie charts or graphs generated through pivot functions in excel.

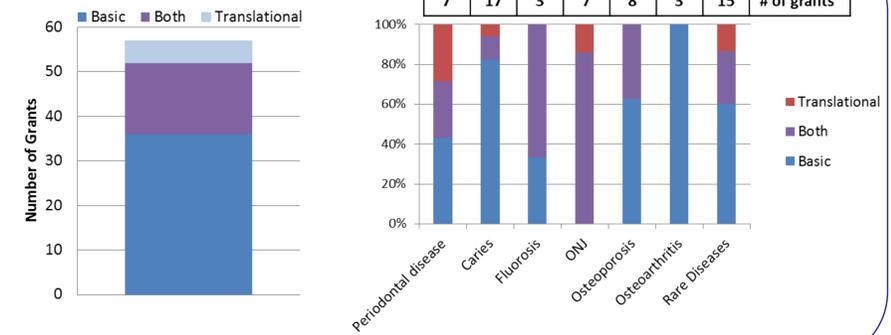
PROGRAM LEVEL ANALYSIS

The NIDCR's Mineralized Tissue Program (T3G) supports basic and translational science research on craniofacial skeletal and dental biology and pathobiology. To gain an understanding of the distribution of grants across various scientific areas, each grant under the PCC:T3G was categorized into Basic versus Translational, a Disease/Condition, Pathway involved, and Tools used. The multiple tissues figure illustrates one complication in trying to categorize grants which straddle more than one defined area.

T3G Grants by Mechanism



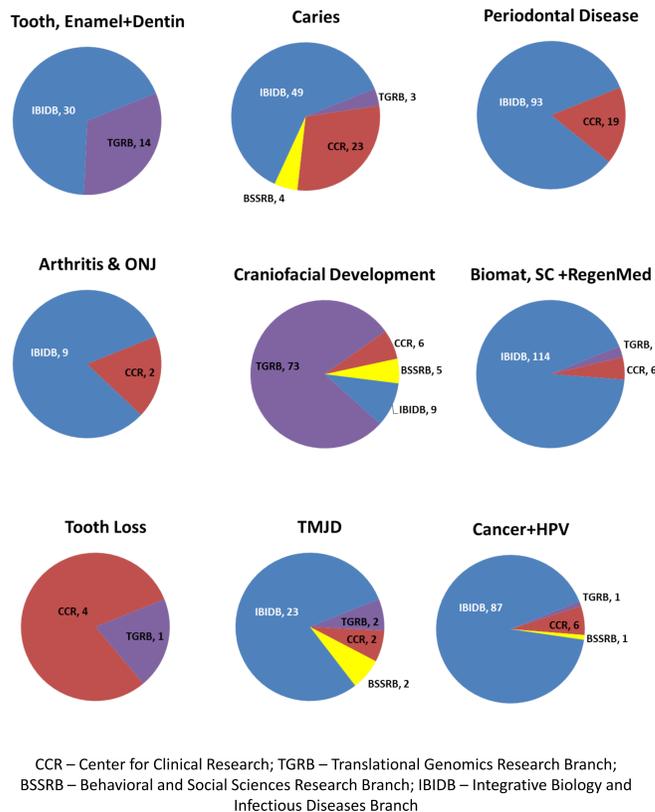
Basic vs Translational Research



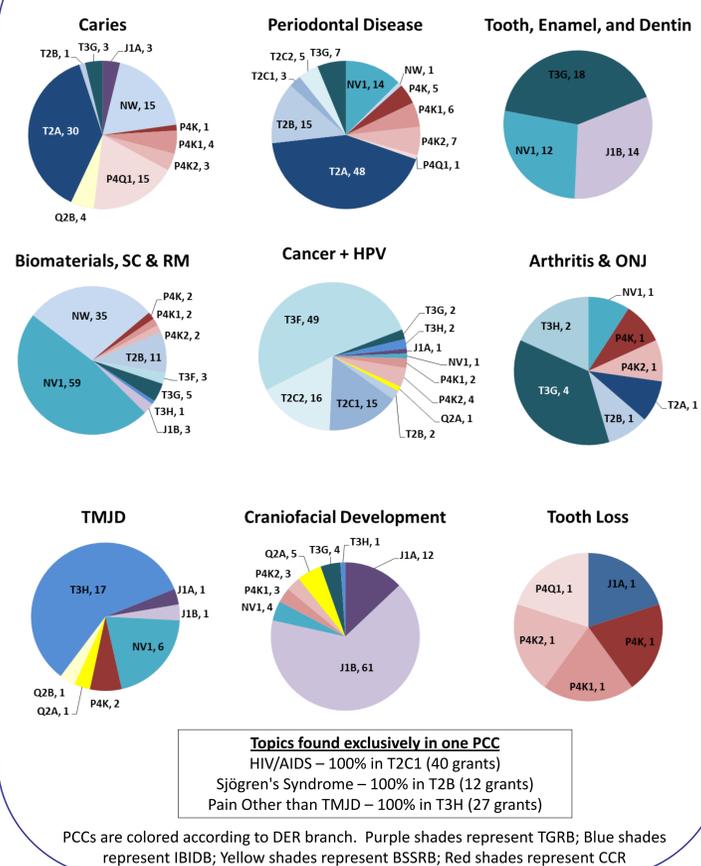
DIVISION LEVEL ANALYSIS

The Division consists of four branches each with a distinct focus. Even with a defined program area, there are topics or diseases which span multiple branches. An examination of the layout was performed across the DER branches of the 12 most prevalent diseases/topics supported by NIDCR. Data was derived from NIDCR SCORE system coding and includes all FY2013 funded Research Project Grant (RPG) applications sorted by the disease and topic sets.

DER Disease/Topic sorted by Branch

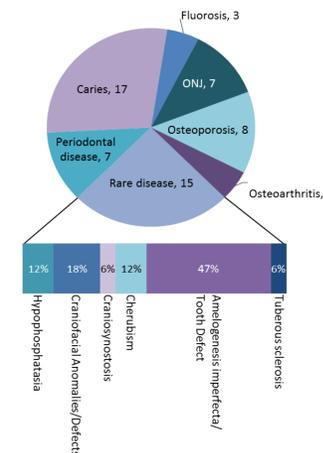


DER PCC sorted by Disease/Topic

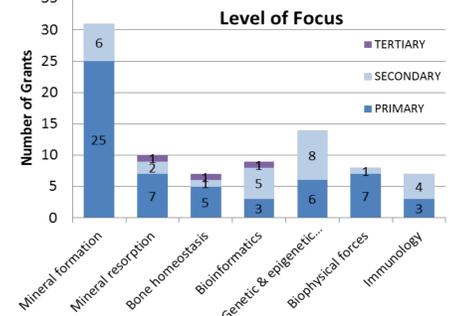
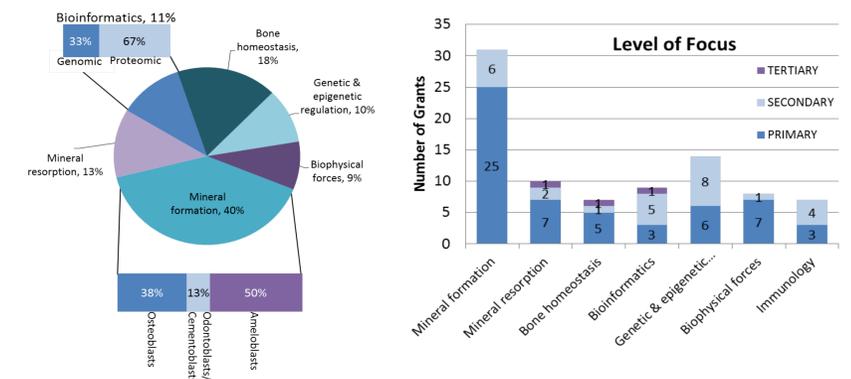


PCC:T3G Breakdown by Areas of Focus

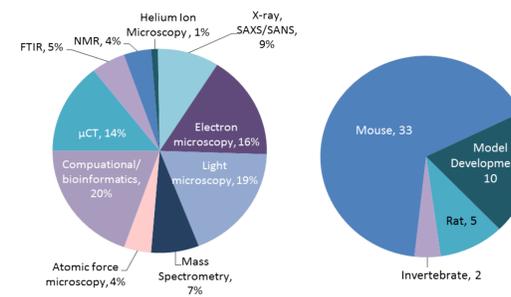
By Diseases/Condition



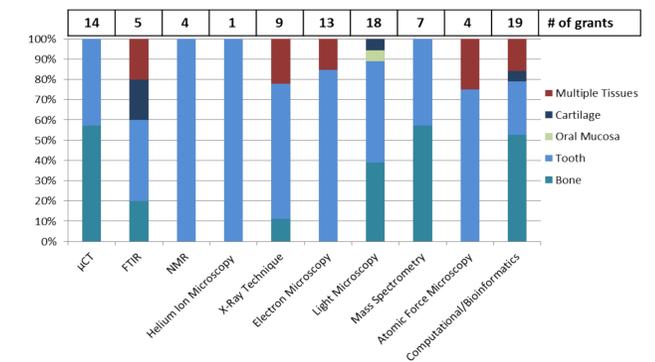
By Process/Pathway



By Tools/Imaging/Models



By Tissue



CONCLUSIONS

By far the largest and most time consuming task is the binning of projects into custom groups that reflect different programmatic coverage. We found it necessary for the PO to read through the abstract at a minimum to ascertain the topic and degree of involvement of overlapping coverage areas. Topics and categories are fluid and need to be so to allow for different angles of interpretation of the data. Initial work was preformed to utilize IN-SPIRE to help preform in-depth analyses. Use of IN-SPIRE allows for easy generation of graphics; however, bins still need to be generated within the program according to the desired categories. Utilization of a pre-coded system is by far the quickest way to preform a complete portfolio analysis.

ACKNOWLEDGEMENTS

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