

TrialShare: Open data access for translational and clinical immunology

Numerous initiatives are underway focused on making data more broadly accessible to investigators, usually in the form of data repositories or public archives. The Immune Tolerance Network (ITN) has developed a notable approach that extends these activities considerably, by creating a web-based portal (called TrialShare) for all data—including participant-level results—from ITN clinical trials, completely open to anyone. In addition, user-friendly tools are integrated into TrialShare to enable sophisticated analyses within the portal, downloading of user-defined datasets, and links to ITN manuscripts.



Fig. 1.

The ITN designs and conducts a large number of innovative clinical trials organized around the concept of immunomodulation for durable immune tolerance. Information and functions in TrialShare are organized by individual studies and clinical trials, within the four broad ITN clinical categories: transplantation, autoimmunity, allergy, and type 1 diabetes. A study in TrialShare is a toolset and living archive of datasets, reports, participant records, specimens, and other assets that allow a user to evaluate any parameters of interest, whether clinical outcomes or detailed

immunological and biomarker phenotypes. Users create their own time charts, reports, and filtered views from the study data. User guides are embedded in the site, and intuitive search options and tabs help the user navigate complex datasets.

By providing completely open access to all data, the ITN hopes to catalyze additional research analyses of information from these trials. Links to datasets on TrialShare are now included in many manuscripts written by ITN investigators: for example, while reading a publication online, clicking on the link in a Figure legend will open the corresponding Figure in TrialShare, where it can be re-analyzed by changing display parameters, subsetting individual datapoints by various characteristics, or modified by including additional subjects or data.

ITN TrialShare has been recognized by receiving the first National Academy of Sciences Data and Information Challenge award. The Academy's Board on Research Data and Information held the challenge themed "Using Data for the Public Good" to increase awareness of issues regarding access to scientific research data and encourage maximum societal benefit from its use. With over 1000 page views per month, in addition to use by ITN's own study teams, this data sharing initiative serves to validate the concept that public data sharing is both possible and the right thing to do.

Access at: www.ITNTrialShare.org

Jerry Nepom

Immune Tolerance Network, Bethesda, Md; Benaroya Research Institute, Seattle, WA, USA

Publication

[Clinical trial data access: Opening doors with TrialShare.](#)

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