

February 2022 Newsletter



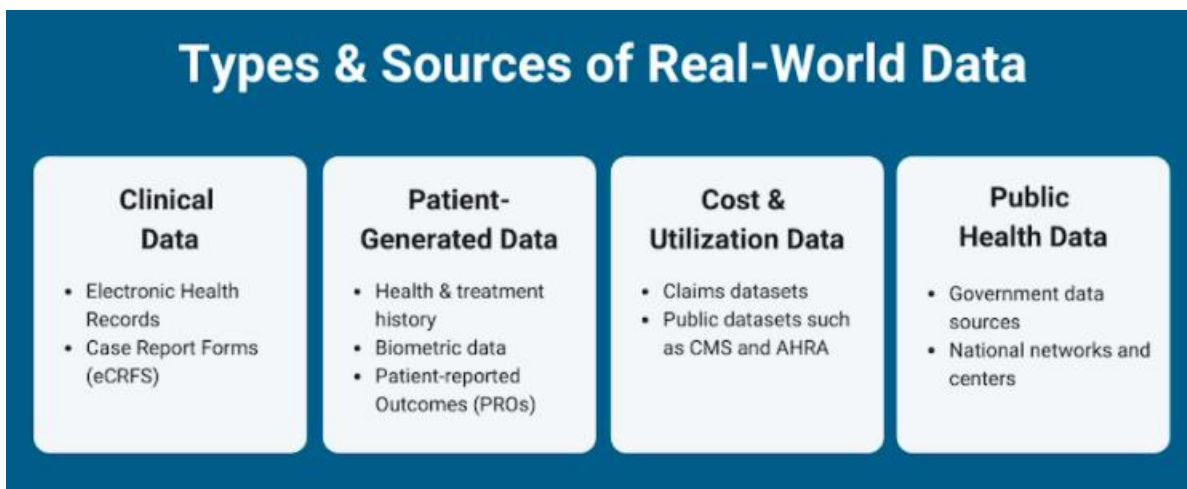
The MSDA Catalogue – An Important Tool in the Search for a Cure

We, at ACP, believe that research is the only way to greatly improve the outlook for people with MS and one day find a cure. Data collection and sharing are key in the research process. Our two main initiatives are important tools for obtaining the necessary data to understand not only the causes of MS, but also the full scope of impact the disease has on those living with it. The [ACP Repository](#) is a collection of thousands of biosamples and associated data that also has millions of returned data points deposited for the benefit of all researchers. [iConquerMS](#) engages people with MS and their loved ones to participate in research by sharing their health information, completing questionnaires on a variety of subjects and connecting with researchers by an online portal. Both datasets hold great potential for accelerating efforts toward determining what causes MS, improving treatments and finding a cure.



As discussed in our [March 2018 newsletter](#), physicians rely on changes in [health status](#) (otherwise known as health outcomes) to determine a course of treatment. Health outcomes are classified according to the source from which they are collected. A

physician reported outcome is one collected by a physician in the course of clinical care (for example, the physical exam, imaging scans or lab tests). A **patient reported outcome** (PRO) is one directly reported by the person who experienced it. PROs are most often factors that matter most to an individual, such as symptoms, functioning and quality of life. PRO and physician reported outcomes measure different components of a person's well-being and should ideally be used together to assess their health status and to provide individualized treatment. Physician reported outcomes and PROs are types of **real-world data** (RWD). RWD relate to the health status of and the delivery of healthcare to an individual. They come from sources other than traditional clinical trials, such as electronic health records, claims and billing activities, product and disease



registries, and individuals themselves. The ACP Repository and iConquerMS databases contain RWD that are readily available for research, giving investigators an accurate picture of MS from both the clinical and personal perspectives. Using this type of data, therapies can be developed and evaluated under real-world conditions more cost effectively and in a wider population than would be possible in clinical trials.



The [Multiple Sclerosis Data Alliance](#) (MSDA) is a global multi-stakeholder collaboration that was founded on the belief that data can transform the care of people with MS. They encourage all participants in the research process, including clinicians, researchers and people with MS, to contribute and use RWD collaboratively to address important knowledge gaps that clinical trials may not address, thereby facilitating the development of new and effective MS treatments. The MSDA has two initiatives in place to step up the use of MS RWD. The [MSDA Academy's](#) mission is

to raise awareness about the importance of research using this type of data. This initiative is working to build an MS data community and promote the trustworthy and transparent usage of MS RWD within it. The [MSDA Toolbox](#), as the name implies, develops tools to reduce the time and effort needed to access MS RWD. One recently developed tool is the [MSDA Catalogue](#), which is a listing of MS RWD sources and datasets. Registry recruitment for the MSDA Catalogue started in June 2019 and has been ongoing. Investigators with particular study requirements or research questions can browse the catalogue for the information they need for their studies. This valuable resource not only reduces the time needed to discover MS RWD sets, but also promotes collaboration in the research community.

The [status](#) of the MSDA Catalogue was recently published in the International Journal of MS Care. To date, 38 data sources across 5 continents are included, including the ACP Repository and iConquerMS databases. The participating registries were initiated between 1956 and 2020, and enrollments range from a few hundred to more than seventy-five thousand



people with MS. Of the 38 registries, 18 are sponsored by academic/research institutions, 8 by health care organizations, 6 by patient organizations, and 11 by other institutions or organizations, such as the government or private companies. There are 15 languages used among the 38 registries, but English is the most common (used in 21 of them). Participants were included for data collection if MS was diagnosed based on the [McDonald criteria](#) in 30 of the 38 registries. Twenty-two cohorts include participants with possible MS/clinically isolated syndrome, and 8 collect data on individuals with self-reported MS that is not clinically validated.



Personal and basic disease data are the most collected variables across registries in the MSDA catalogue, whereas information on fatigue measurements and cognition scales are the least collected. Of note, data regarding COVID-19 and MS are collected by 26 of the registries. The source of data for most of the cohorts (89%) is health care

services. Information was collected on paper forms in 12 of the registries. Other sources include manual merging of data sets and remote (web-based) data entry. Data was entered

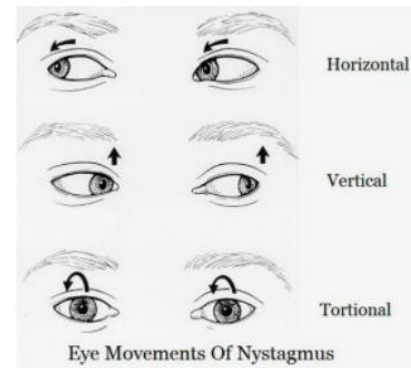
by a neurologist in 31 of the web-based registries and in a little over half of those it was also entered by a medical assistant or nurse. Participants did data entry in 16 of 38 registries. Other reported sources include a pharmacist, data manager, study coordinator, neurology resident or research assistant. Electronic health technologies were used to collect data in 11 of the registries, the most commonly used were mobile apps and wearable devices.

There are many existing and arising RWD sources in MS that are unique in their purpose, maturity and content. The MSDA Catalogue aligns and organizes this valuable information in such a way that it is at researchers' fingertips as they strive to answer specific research questions. Ready access to RWD has the potential to speed up collaborative efforts that are working toward better treatments and a cure for MS. We'd like to extend a heartfelt thank you to all that have participated in the ACP Repository and are members of the iConquerMS community. We are excited to contribute your data to this collective effort and look forward to seeing the advances in MS research that are made as a result. According to ACP's CEO Sara Loud, "To me, the collaborative nature of our work is most exciting... A complex disease like MS is unlikely to be cured in a fragmented research environment. There is a tremendous need for collaboration in order to accelerate MS research toward better ways to diagnose, treat, and eventually cure the disease."



Understanding and Living With Nystagmus

People with MS often have difficulty with their vision. Nystagmus is an eye movement disorder that sometimes occurs where the eyes move rapidly and uncontrollably. They can move at varying speeds from side to side (horizontal nystagmus), up and down (vertical nystagmus), or in a circle (torsional nystagmus). The movement usually happens in both eyes and they often shake more when looking in certain directions. This can cause problems with vision, depth perception, balance and coordination.

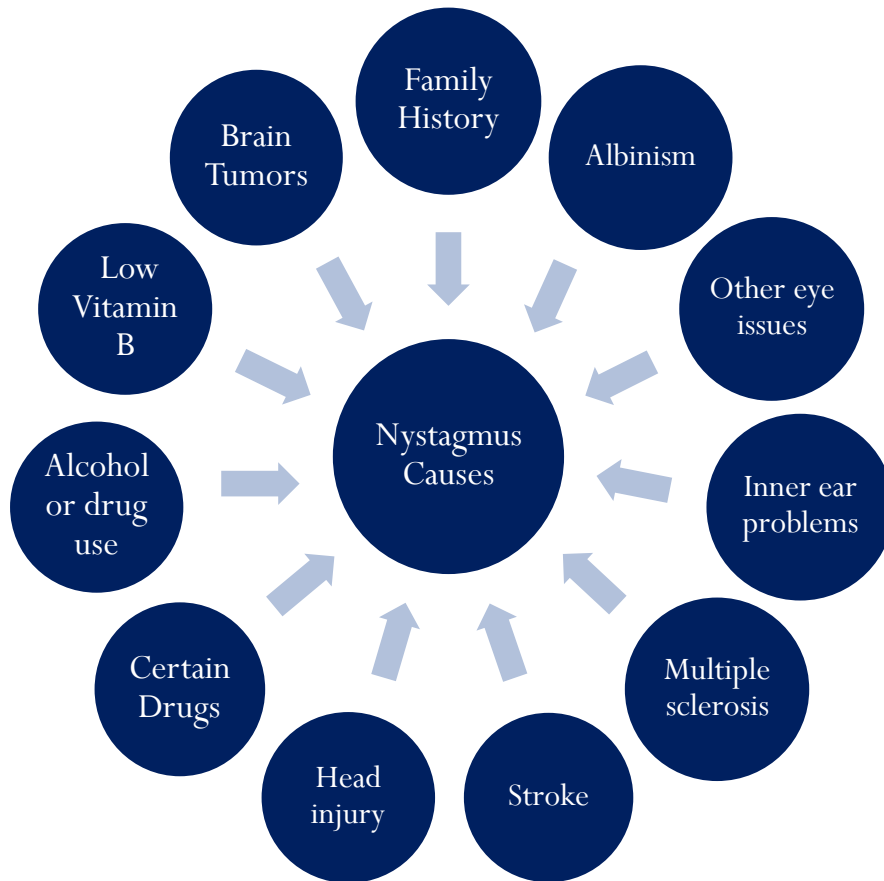


There are two types of nystagmus. **Congenital nystagmus** starts in infants, usually between 6 weeks and 3 months of age. In some cases it is genetic, however the exact cause isn't always clear. Children with congenital nystagmus usually have it in both eyes, it is typically mild and the main symptom is blurry vision.



Acquired nystagmus develops later in life. The condition is usually caused by an underlying health condition, like MS, or drug and alcohol use. Adults with acquired nystagmus often describe their vision as “shaky.”

The brain controls eye movement. Typically, the eyes move automatically to adjust when a person moves their head slightly. This stabilizes the image that is being viewed so it is sharper. In people with nystagmus, the areas of the brain that control eye movements do not work properly. This can be due to many different things:



As mentioned earlier, the main symptom of nystagmus is rapid eye movement that cannot be controlled. Other symptoms include light sensitivity, night blindness, dizziness/balance issues, or a shaking sensation. These symptoms may worsen when an individual is tired or stressed. People with nystagmus often hold their head in a tilted or turned position. This improves focus and helps things look clearer.

Nystagmus can be diagnosed with a [comprehensive eye exam](#), which is usually performed by an

ophthalmologist. He or she may run a number of tests, including a neurological examination, eye-movement recordings, an ear exam, or brain

imaging scans, such as a [Computerized Tomography \(CT\)](#) or [Magnetic Resonance Imaging \(MRI\)](#). Another simple way to test for nystagmus involves spinning an individual around for 30 seconds, then stopping and asking them to stare at an object. If nystagmus is present, their eyes will move slowly in one direction, then quickly in the other.



The best treatment for nystagmus depends on the cause of the condition. Acquired nystagmus can sometimes be corrected once the underlying condition is addressed. For example, if nystagmus is caused by an inner ear condition, symptoms may go away once that condition is treated. Congenital nystagmus typically disappears as a child grows. There are a number of different ways to manage or treat this troubling condition in the meantime:



Glasses or contact lenses - Clearer vision can help slow the rapid eye movements associated with nystagmus.



LASIK - While laser eye surgery doesn't cure nystagmus, it improves vision and nystagmus symptoms may be reduced as a result.



Medications - Gabapentin, Baclofen and Botox can reduce nystagmus symptoms in adults. These medications are not used to treat nystagmus in children.



Surgery can be done to reposition the muscles that move the eyes, allowing the head to be in a more comfortable position. This helps to limit eye movement.

There are a number of things that can be done at home to make it easier to live with "dancing eyes."

Tips for living with nystagmus:



Abstain from alcohol



Work in good lighting.



Adjust the brightness, color and font size when using a computer to optimize viewing.



Read large print books, when possible.



Use a highlighter or line marker when reading to keep your place.



Take frequent breaks when reading for long periods of time.



Wear tinted glasses or wear a hat indoors and out to reduce glare, as needed.



Make sure glasses or contacts are always up to date to improve vision as much as possible.



Develop a comfortable explanation for family and friends to help them understand nystagmus.

In addition, for children living with nystagmus, it may help to allow them to hold books close to their eyes with their head tilted. Big, brightly colored toys will be easiest for them to play with, as well as those that make noise or have unique textures. It's important to talk to their teachers to make things easier at school. Providing them with individual books and worksheets is of utmost importance as sharing these resources would be a challenge. Allowing them to choose where to sit so they can see the board and the teacher may also be helpful.

The symptoms of nystagmus can make daily tasks more challenging and impact one's quality of life. For example, some people with nystagmus find that their condition prevents them from driving, inhibits their ability to participate in certain activities/jobs or perform personal care tasks. While the condition can't be cured completely, there are treatments that can help. Many people learn to live with nystagmus and minimize its impact on their daily lives. Nystagmus can be linked to serious health issues, so it's important for individuals experiencing changes in their vision to consult with a physician right away. He or she will be able to run a variety of tests to make an accurate diagnosis and suggest effective treatment or management strategies.



February 2022 iConquerMS Spotlight



Welcoming Children and Teens to iConquerMS – Seeking your input!

iConquerMS (www.iConquerMS.org) is a virtual research community for people affected by MS, created and maintained by the nonprofit Accelerated Cure Project. Members of iConquerMS register on the iConquerMS.org website and participate in a variety of activities to shape and support research.



iConquerMS currently has over 7,500 members worldwide, all of whom are adults 21 years of age or older. We are in the process of expanding the initiative to include children and adolescents as well as their parents and guardians as iConquerMS members. This project is being guided by a multi-stakeholder steering committee that includes adolescents with MS, parents of children with MS, advocacy groups, healthcare providers, and researchers.

When finished, iConquerMS membership will be opened up to younger people with MS and their parents/guardians. We will also seek to partner with pediatric MS researchers to support their work, and will look for ways to support pediatric MS healthcare providers and their needs for information and resources.

We are looking for feedback from those who were diagnosed with MS as a child or teen, their parents and guardians, healthcare providers and researchers as we design and implement support for pediatric MS within iConquerMS. Those interested in sharing their perspectives can complete the appropriate surveys below (each should take about 10 minutes to complete):



At the end of the survey children and teens, their parents and guardians be invited to go to another form where you can provide your contact information if you'd like to be sent a \$5 gift code for completing the survey and/or be kept informed about iConquerMS.

Thank you, in advance, for sharing your insights and helping us to make the iConquerMS initiative inclusive of this very important age group!

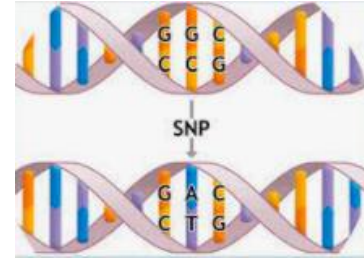


February 2022 Research Spotlight

NEW RESEARCH RESULTS

Research Facilitated by the ACP Repository

Most of the MS genetic studies to date, including those conducted by the International MS Genetics Consortium (IMSGC), which included DNA samples from the ACP Repository, have examined the correlation between genetic differences (so called single nucleotide polymorphisms, or SNPs) and disease risk. Over 200 genetic differences were identified in the IMSGC studies. Most of these studies were conducted in people of European ancestry, much less data has been acquired from people of African ancestry. As a result, less information is available on the genetic differences correlated to disease risk in that population.



While some studies have examined the correlation between SNPs and disease risk primarily in people of European ancestry, few studies have looked at the correlation between SNPs and the risk of disease progression, regardless of ancestry.



Boullerne et al. at the University of Illinois Chicago (UIC) acquired DNA samples from the ACP Repository and the Veterans

Administration Centers to be included in a study of a specific SNP in the gene encoding the enzyme serine threonine kinase 11, abbreviated as STK11. This SNP was previously identified by the UIC team as a risk factor in people of European descent with relapsing remitting MS (RRMS). This latest published work from the UIC group show STK11 is also a risk factor in Americans of African ancestry. In contrast to people with MS of European ancestry, STK11 SNP carriers show first symptom onset at an older age in African American SPMS patients and a younger age of onset in African American RRMS patients. In addition, the [MS Severity Score](#) (MSSS) was shown to be higher in African Americans, including those carrying the

STK11 SNP. The MSSS compares how an individual's EDSS score compares with others with a similar disease duration.

This study, supported by ACP Repository samples, has generated findings that are important for the discovery of biomarkers and drug targets associated with MS age of onset and disease progression. It is also important from the perspective of including people of diverse ethnicities and ancestries in studies of disease mechanisms.



EVENTS

Don't Miss the Chat with Chat webinar series!

The Next Steps Committee of iConquerMS has launched a webinar series called "Chat with Chat" and you're invited! Hosted by our research collaborator Chat Ngorsuraches, these conversations provide a glimpse at the researchers working with iConquerMS, what they study, and how their work will benefit people with MS.



In [Episode 1](#), Chat spoke about his own research into the aspects of MS drugs that people value the most.

In [Episode 2](#), Chat spoke with Nina Bozinov, MD MS, about "Measuring the Quality of Life of People With MS: Findings From the REAL MS Study." If you've participated in REAL MS, this is a great chance to learn what your data is telling us about life with MS.

In [Episode 3](#), Chat spoke with Farrah Mateen, MD PhD, about what we've learned from iConquerMS about COVID-19 and MS.



A heartfelt thank you to Chat and his colleagues for making this educational resource possible. Stay tuned for future episodes!

RESEARCH OPPORTUNITIES



DELIVER-MS

Early Intensive versus Escalation Approaches for the Treatment of Relapsing Remitting MS – Which is More Effective?

A study based at the Cleveland Clinic and the University of Nottingham (United Kingdom) is comparing two treatment strategies in 800 people with relapsing-remitting MS who have never taken a disease-modifying therapy. The study is recruiting at 30 centers in the United States and United Kingdom. One strategy is an “escalation” approach, in which individuals start taking a less-powerful therapy with the option of switching to a more potent one if disease activity continues. The other strategy involves starting with a strong therapy that is potentially more effective, but also carries greater risk for significant adverse effects. The [DELIVER-MS Trial](#) (Determining the Effectiveness of Early Intensive versus Escalation Approaches for the Treatment of Relapsing-Remitting Multiple Sclerosis) is funded by the Patient-Centered Outcomes Research Institute (PCORI).

Eligibility and Details

Investigators are seeking participants diagnosed with relapsing-remitting MS who are between the ages of 18 and 60 years. Participants are eligible if they have had MS for five years or less and have never been treated with an MS disease-modifying therapy. Further enrollment criteria are available from the contact section below.

Eligible participants will be randomly assigned into one of two groups and will choose along with their neurology provider among options in either a first-line or higher-efficacy therapy group. Participants and their neurology specialist will choose the therapy within the category that is most appropriate for them.

During the three years that they are enrolled in the study, participants will have regular check-ups and MRI scans with their MS team, to look at the effects of treatment. They will be free to change treatment, in discussion with their neurologist, for any reason at any time.

The primary outcome being measured is the effect of treatment on brain tissue loss. Investigators will also monitor treatment effects on disability progression as measured by the EDSS scale, quality of life, other imaging measures, and safety.

Contact

To learn more about the enrollment criteria for this study, and to find out if you are eligible to participate, please visit the study [website](#) and you will be connected with a participating site in your area.

Site Locations

Cleveland Clinic, Cleveland, OH

Cleveland Clinic-Las Vegas, NV

Ohio Health, Columbus, OH

University of Colorado, Anschutz Medical Campus, Aurora, CO

University of Rochester, Rochester, NY

University of Texas, Houston, TX
University of Virginia, Charlottesville, VA
Baylor College of Medicine, Houston, TX
University of Wisconsin, Madison, WI
University of Cincinnati, Cincinnati, OH
University of Minnesota, Minneapolis, MN
Mayo Clinic, Rochester, MN
University of Texas, Austin, TX
University of Buffalo, Buffalo, NY
Virginia Commonwealth University, Richmond, VA

The DELIVER-MS Trial is one of two studies funded by PCORI that will help inform treatment decisions around whether, and which, people with MS would most benefit from early, possibly more risky aggressive therapy. The other study is [TREAT-MS](#) (Traditional versus Early Aggressive Therapy for Multiple Sclerosis). Both studies are recruiting participants.



**Your health data
has power!**

A new topic for the Our Questions Have Power program!

When it comes to MS symptoms and how to manage them, what questions are most important to you? What symptom-related topics do you wish researchers were studying? **Your questions are valuable** and we invite you to share them through the **Our Questions Have Power** program on the [iConquerMS](#) website.

[The Our Questions Have Power program](#) was launched in March with an initial focus on COVID-19. Questions submitted by iConquerMS members have helped shape the

[COVER-MS vaccination study](#) and are being shared with the research community to guide other efforts.

We're now extending Our Questions Have Power to include a second topic: **MS symptoms and their management and treatment**. As before, you're invited to share questions on this topic that you think should be studied and to vote on questions submitted by other iConquerMS members.

We'll share these questions with people affected by MS, researchers, healthcare professionals, advocates, and funders – and, together, we'll work to launch research studies to answer those questions.

It's easy to share your ideas and input in Our Questions Have Power!

- Log into [iConquerMS](#) to start (create an account first if you don't already have one).
- Have a research question to submit? Click **PROPOSE an MS Research Question** to submit a question you'd like to see studied.
- Want to weigh in on other people's ideas? Click **VOTE and COMMENT on MS Research Questions** to review, comment, and vote on questions submitted by other iConquerMS members.