Dear Friends,

To collaborate, according to Merriam-Webster, is “to work jointly with others, especially in an intellectual endeavor.” In a research collaboration, investigators work together to gain new scientific knowledge. This cooperative effort has great potential for speeding up research progress. Since its inception, collaboration has been central to ACP’s mission. The ACP Repository fosters collaboration by requiring researchers to return their research results so they can be shared with other researchers. iConquerMS enables those who are affected by the disease (the ultimate experts) to be instrumental in driving, shaping, and accelerating research to determine better treatments, improving quality-of-life, and ultimately a cure for MS. Read more about ACP’s recent collaborations, which hold great promise for facilitating MS research.

Statistics show our health care system is fraught with errors. Recent research indicates that mistakes may account for as many as 251,000 deaths annually in the United States, making medical errors the third leading cause of death. Collaboration in healthcare improves coordination of services, communication and, ultimately, the quality and safety of patient care. MS is a complex disease that requires a comprehensive, cooperative approach for effective care. One in which the patient is an integral member of a healthcare team, providing input and participating in healthcare decisions. Our second article details the role collaboration and patient engagement play in optimizing MS care.

The iConquerMS initiative is unique in that it is governed by a majority of people with MS. The Governing Board, Engagement committee, and Research committee all play a pivotal role in its success. In September, members of the iConquerMS governance gathered, along with other stakeholders in MS, at our annual Leadership Summit to envision ways to create collaborations that will transform MS research, provide value to all, and prioritize benefits to people affected by MS. In this month’s newsletter, we provide some highlights of this amazing gathering and share more about
the strategic direction of iConquerMS, as well as the compelling potential of transformative collaborations fostered by the initiative!

Elizabeth Jameson was “living the dream” with a young family, practicing as a lawyer in social justice, when she was diagnosed with MS. Her artwork, featured in our July 2017 newsletter, served as an outlet to express her feelings as her disability progressed. Today, Elizabeth is a quadriplegic. Through collaboration with her colleague, Catherine Monahan, Elizabeth is able to share how she breaks through the isolation that comes with not being able to touch. Be sure to read her inspirational perspective, recently published an article in the Disability column of the New York Times.

Our Repository Spotlight features Dr. Manu Rangachari of Laval University. Dr. Rangachari’s work sheds light on how patterns in gene expression correlate with MS disease severity, as well as how they change during disease expression. This information may be very useful in developing MS diagnostics and in identifying new drug targets.

Our iConquerMS Spotlight highlights STEP for MS. This collaborative study aims to provide people with MS better information to guide their choice of exercise options.

Your support of ACP’s programs makes a significant impact on research into MS. We invite you to share the ACP newsletter with anyone you think may be interested.

The Accelerated Cure Project Team

Working Together Toward Common Goals

To collaborate, according to Merriam-Webster, is “to work jointly with others, especially in an intellectual endeavor.” In a research collaboration, investigators work together to gain new scientific knowledge. Research collaborations can vary widely (from offering insights or resources, to active participation in a specific project) and can occur at many levels (for example, between individuals, groups, departments, institutions, or countries). This type of partnership has great potential for speeding up research progress. According to businesswoman, Caroline Ghosn, “Collaboration is like carbonation for fresh ideas. Working together bubbles up ideas you would not have come up with solo, which gets you further faster.”

While bringing multiple scientific minds together often involves some degree of compromise, it also offers exciting prospects. This cooperation effectively “plugs” the researcher into a wider network in the scientific community. As a result, he or she may work with people from differing backgrounds, with varied skill sets, or using different research techniques. The practice of working with teams can offer fresh perspectives to addressing research questions. This may generate new insights that individuals, working on their own, would not have grasped (or grasped as quickly). Frequently resources found lacking with one investigator or
institution can be found through engagement with a collaborator, and vice versa. Verification of findings plays a key role in scientific research. Replication of data by different researchers may also confirm the validity of a conclusion.

EMD Serono researchers strive to improve the lives of people living with MS by offering better therapies and support services, made possible by cutting edge research. Until now, input from people living with MS hasn’t been considered in the drug development process throughout the industry, leaving many important questions unanswered (for example, what symptoms and quality of life improvements matter most, or what therapeutic benefit/risk tradeoffs would people with MS be willing to make). The U.S. Food and Drug Administration (FDA) recently released guidance related to Patient-Focused Drug Development (PFDD) that defines PFDD as a systematic approach to ensure that patients’ experiences, perspectives, needs and priorities are captured and meaningfully incorporated into drug development and evaluation. ACP and EMD Serono have entered into a groundbreaking collaboration that is well aligned with this guidance. This partnership will ensure patients’ complete walk with MS is captured and meaningfully incorporated into the drug development process. As part of this program, members of the iConquerMS community will be invited to participate in a PFDD Council. The Council will work closely with the iConquerMS project team and team members from EMD Serono to undertake truly patient-focused drug development. The iConquerMS patient portal will be used to gather new PRO data and iConquerMS participants will provide input across all stages of the study through workshops, document reviews, focus groups and surveys. The collaboration between iConquerMS and EMD Serono, the first of its kind in MS research, is an important opportunity for the collective voices and insights of people with MS to be heard and to drive real progress in research, drug development, and ultimately in the fight against MS. According to Robert McBurney, CEO of ACP, this partnership will “break silos and advance the engagement of patients across the entirety of the clinical research process.”

ACP is working with individuals and organizations worldwide to facilitate MS research toward better diagnoses, treatments and a cure for MS. One such organization is the Italian MS Society. There are many treatment options for MS with varying levels of therapeutic benefit and risk. Unfortunately, there isn’t enough information available regarding the effects of various treatments on the symptoms, disabilities and quality of life of people with MS. This makes it difficult for people with MS and their physicians to make therapeutic choices. As discussed in our March 2018 newsletter, a patient reported outcome (PRO) is one directly reported by the patient who experienced it. iConquerMS and the Italian MS Society are both focused on collecting PRO data for MS research and healthcare. As PROs are an emerging field in MS and of increasing interest to researchers, there are a very large number of surveys designed to collect this important information, with little standardization or harmonization. Researchers need to determine how these varied data can be translated and used to improve healthcare and quality of life for people with MS. To address this issue, ACP and the Italian MS Society are working together to standardize and unify PRO measures across cultures. This collaboration aims to establish a system and tools for the collection, presentation and interpretation of PRO data for use in research and in shared healthcare decision-
making, allowing all stakeholders involved to speak the same language. The end result will bring outcomes that matter most to people affected by MS into every aspect of their care and in research to improve treatments worldwide.

As discussed in our March 2018 newsletter, RealTalk MS is a successful podcast series (established by Jon Strum), which currently reaches an audience of over 3,400 listeners. Weekly episodes offer both information and inspiration to people affected by MS. With the joint goal of promoting and communicating research results and activities to the MS community, ACP and Jon Strum will work together to increase the reach and visibility of both RealTalk MS and iConquerMS. This partnership holds great promise for both programs. The increased visibility through Jon’s podcasts has the potential to boost iConquerMS enrollment, and enables more effective communication of iConquerMS research activities and results to the MS community. RealTalk MS will receive input on podcast topics of interest to people affected by MS, as well as connections to potential interviewees who are doing important and interesting work in MS. In addition, both teams will work together to seek funding to support these activities, which increases their sustainability.

Since its inception, collaboration has been central to ACP’s mission. In COO, Sara Loud’s words, “To me, the collaborative nature of our work is most exciting. Back when ACP started, it was rare to have researchers from different disciplines collaborate across their fields. A complex disease like MS is unlikely to be cured in a fragmented research environment. The ACP Repository is really such a brilliant (and definitely novel) approach to fostering collaboration by requiring researchers to return their research results back to us so that we can share them with other researchers. What started as a sort of virtual collaboration approach has morphed into a more outright collaborative approach as the research environment has changed for the better and as we work with more and more researchers. It’s not uncommon for us to not only share one researcher’s data with another but to connect them so they can explore working together. We’ve taken this collaboration a giant step further through iConquerMS by bringing the most important experts on MS, the people affected by the disease, front and center into research. The ‘people-power’ of iConquerMS means that people affected by the disease are driving, shaping, and contributing to MS research in brand new ways — ways that will ensure that research gets done on topics that matter most to them.”
How Well Does Your Healthcare Team Communicate?

Statistics show our health care system is brimming with errors. Recent research indicates that mistakes may account for as many as 251,000 deaths annually in the United States, making medical errors the third leading cause of death. In part, this is because providers do not sufficiently function in teams. Doctors and specialists do not confer, tests are repeated and test results are not shared, and care is not coordinated in ways that protect patients in the course of their clinical care. There is increasing evidence that collaboration in healthcare improves coordination of services, communication and, ultimately, the quality and safety of patient care. Collaboration in healthcare utilizes both the individual and collective skills and experience of team members, allowing them to function more effectively and deliver a higher level of services than each would be able to provide working alone.

Ideally, teamwork in health care is interdisciplinary, for which high levels of collaboration are essential. Unlike a multidisciplinary approach, in which each team member is responsible only for the activities related to his or her own specialty and forms separate goals for the patient, an interdisciplinary approach integrates efforts on behalf of the patient with a common goal shared by all providers involved in the care plan. This approach takes into account multiple assessments and treatment regimens, and creates an individualized treatment plan that best addresses the needs of the patient. The patient often finds that communication is easier with a connected team, rather than a fragmented one in which numerous providers do not know what others are doing to manage the patient’s care.

There are numerous benefits of collaboration in healthcare. For providers, it enables a more comprehensive view of patient care. All members of a patient’s medical team (including nurses, radiologists, emergency medical technicians (EMTs), social workers and professionals from many other disciplines) are in a position to give input about an individual’s care. Bringing all viewpoints together enables a better understanding of the patient’s needs. By joining forces, medical professionals support each other. Instead of one person responsible for the patient’s health, an entire team of professionals comes together to coordinate a patient’s care. This breaks down the silos of different disciplines, encourages camaraderie and reduces issues that lead to provider burnout. When all medical and healthcare professionals are working together, a more communicative environment develops in which there is continuity of care, and missed symptoms or miscommunication about patient needs is less likely.

From the patient perspective, instead of having providers take turns caring for them, individuals have a team on their side from the start, working together to provide care that has lasting benefit. Collaborative patient-clinician interactions generate trust and rapport, which in turn lead to greater levels of openness, negotiation, and successful adherence to treatment plans. Because teamwork is based on solid communication, patients and
their families may feel more at ease and satisfied with their healthcare. Consistent and responsive communication of information to patients that ensures their understanding enables patients to participate in care decisions.

A collaborative approach promotes patient-centered care. By definition, patient-centered care “incorporates the patient’s values, beliefs and preferences regarding overall health and wellbeing into the plan of care and implementation of all care activities.” The Patient-Centered Medical Home is a model, proposed by the Agency for Healthcare Research and Quality, which holds promise as a way to improve healthcare in the U.S. by transforming how it is organized and delivered. In this paradigm, care is coordinated across the health care system, including specialty care, hospitals, home healthcare, as well as community services and supports. Providers work with patients and their loved ones to understand each individual’s unique needs, culture and preferences. Patients and families are recognized as core members of the care team and health care professionals ensure that they are fully informed partners in establishing care plans. The patient makes his or her own healthcare decisions, backed by a support team in which all members are on the same page. Individuals are encouraged to learn to manage and organize their own care at a level they are comfortable with.

MS is a complex disease that requires a comprehensive approach for effective care. Many people with MS rely on their neurologist for all of their care, incorrectly assuming this physician will attend to all of their healthcare needs. Primary care providers may incorrectly assume that reported symptoms are due to MS or that treatment for non-MS issues may interfere with MS treatments, resulting in misdiagnosed or untreated comorbid conditions. Effective MS care often requires input from a number of health professionals and services, each contributing a unique perspective on disease and symptom management. Accurate communication between care providers is a must, making team collaboration essential. The National MS Society’s MS Navigator Program provides valuable services, including information, referrals, case management, emotional support, as well as connections to local programs and services to everyone affected by MS, including families and care partners.

Chronic pain and depression are two of the most prevalent problems experienced by MS patients, despite the availability of effective treatments. The MS Care Study, conducted at the University of Washington (UW) Medicine MS Center, confirms the effectiveness of collaborative care in MS treatment. In addition to their usual care, study participants had weekly sessions with a care manager to discuss symptom management, assess the effectiveness of medications, and learn how to practice self-management skills. The care manager also consulted with MS pain and depression management experts and UW Medicine MS Center providers to tailor treatment to the participant’s specific needs, and connected participants with the MS Center and additional resources to ensure comprehensive care support. Results from the study showed subjects in MS Care had significantly better control of their pain and depressive symptoms than patients receiving usual care. Participants also reported less disability and fatigue.
Shared decision-making is a key component of patient-centered healthcare. It is a process in which clinicians and patients work together to make decisions and select treatment plans based on clinical evidence that balances risks and expected outcomes with patient preferences and values. It’s important for a patient to have ample information about their medical conditions, treatment options, and potential side effects in order to make these decisions. Earlier this year, Can Do MS (featured in our August 2017 newsletter) announced the launch of MS Path 2 Care. This educational initiative features four modules (Understanding Your Healthcare Team, Partnering With Your Healthcare Team, Navigating Healthcare Resources, and Strengthening Your Support Partnership), each providing insights and stories from people impacted by MS, to assist people living with MS in their healthcare decision-making.

It’s equally important for people with MS to communicate information about disease activity and symptoms to their healthcare team. This is a key component of shared decision-making. Many forms of technology are available to help an individual keep in touch with one’s providers. As discussed in our May 2018 newsletter, the Multiple Sclerosis Association of America offers My MS Manager™, a mobile phone application that enables individuals to track MS activity and symptoms. Patients are also able to connect with physicians and other clinicians on their care team via the app to share this important information as needed. Researchers at John’s Hopkins University have developed a Home Automated Telemanagement (HAT) system for MS that provides a personalized, convenient approach to disease management. Patients can monitor symptoms at home and communicate this information to the healthcare team via the Internet. The system questions the patient on their condition, gives detailed step-by-step exercise instructions, records their exercise compliance, then informs and quizzes the patient on their knowledge of MS. Physical therapists are then able to provide an exercise regimen tailored to the patient’s specific needs. The HAT system shows great potential for providing MS patients better care, as well as those patients receiving anticoagulation therapy, patients with asthma, COPD and other health conditions.

Patient engagement and collaboration in healthcare are essential to optimize clinical outcomes not only for people with MS, but also for the general population. Coordination of care across the health care system, coupled with reciprocal, open communication between patients and healthcare professionals are required in order to identify and address each patient’s unmet needs and provide high quality, patient-centered care.
iConquerMS: Making Transformational Collaborations Possible

As described in our June 2017 newsletter, iConquerMS™ empowers people affected by MS to drive MS research and accelerate efforts toward improving treatments and finding a cure for MS. This initiative is overseen by a governing board (responsible for the overall direction and sustainability of iConquerMS), an engagement committee (responsible for the activities associated with the recruitment and retention of the membership) and a research committee (responsible for overseeing the research approval process). The board and committees are comprised of a committed and diverse group of people, the majority of whom live with MS, who care deeply about accelerating research on topics that matter most to people living with the disease.

For most of the year, the governing board and committees work together remotely through conference calls and emails. However, each year the Leadership Summit provides an opportunity for members of the governance, along with other stakeholders in the MS community (health care providers and researchers, representatives from industry and academia, people with MS and care partners) to gather in person to envision the future direction of iConquerMS and discuss how to ensure the initiative is as impactful as possible. Fifty-six people gathered at this year’s Summit, held September 15-16 in Boston, MA. Ora Grodsky from Just Works Consulting facilitated the Summit again this year. The group focused on ways to create collaborations that will transform MS research, provide value to all stakeholders, and prioritize benefits to people affected by MS. Attendees aspired to learn new ways to touch those living with MS, improve their quality of life, and spread the message of hope. Discussions resulted in a shared understanding of the needs, priorities and contributions of the various stakeholder groups, as well as strengths we can build on going forward.

2018 Leadership Summit

After introductions and icebreakers, the group quickly got down to work building on the purpose, vision and guiding principles from last year’s Leadership Summit. After reviewing these key points, discussions turned to the strategic direction of iConquerMS. The group was asked to contemplate “What are our directions and what have we accomplished?” Through enthusiastic discussion and building off of each other’s ideas, the following strategic directions were solidified:
Strategic Direction of iConquerMS – Foster Patient-centered Research

Promote a patient-centered model for research on topics that matter most to people affected by MS, which involves the direct contributions of the MS community in design, implementation and dissemination.

Engage with researchers to familiarize them with iConquerMS research resources, emphasize the benefits of patient-centered research, and invite collaboration.

Develop partnerships among researchers, providers and people affected by MS in order to promote and conduct patient-centered research, disseminate findings, and optimize impact for the MS community.

Conduct research studies to gather the evidence needed in areas of greatest importance to people affected by MS.

Disseminate the evidence generated through iConquerMS research studies to relevant stakeholders with guidance on how people affected by MS might apply this evidence to their own needs. Use this evidence where possible to promote advocacy, shared decision making, and quality improvement processes.

iConquerMS was established to enable and accelerate MS research and other initiatives with the goal of “improving the health, healthcare and quality of life of people affected by MS by connecting those with MS, care partners, clinicians, and researchers, and to work together to accelerate innovation, research, and the application of new knowledge.” This innovative initiative has made significant progress toward achieving its goal. In less than 4 years, the network has grown to over 4,500 registered members. Almost 3,000 members have contributed data about themselves and their experience of MS as part of the network’s REAL MS™ (Research Engagement About Life with MS) research project. To date, iConquerMS has collaborated with researchers and organizations to enable and accelerate 11 research initiatives.

Representatives from many stakeholder groups attended this year’s Leadership Summit (people with MS, care partners, industry, researchers and advocacy). The team’s discussions had three main areas of focus, all laying the groundwork for developing transformational collaborations: building continued momentum and energy for iConquerMS, diving deeply into an understanding of the diverse needs and wants of the different stakeholder groups, and building and strengthening connections with each other in order to best fulfill the purpose and
vision of iConquerMS. In one of the most powerful sessions at the Summit, participants divided into stakeholder groups, self-identifying as a person living with MS, care partner, researcher, member of industry, member of an advocacy organization, or health care provider. Each stakeholder group discussed such questions as “What do you want the others to know about your group?”, “What’s important for them to understand about your world?”, “What are some of your primary challenges as a member of this group?”, and “How could your group benefit from collaboration?” Each stakeholder group then shared their answers and all Summit attendees listened and asked questions to gain a better understanding of their needs, priorities, and contributions. The following insights were gained from these discussions:

People with MS
We are individuals, not a group that can be lumped together (we all have MS, but not much else aligns). We own our MS and have a voice as self-advocates. Don’t discredit us because we are not scientists, we are experts because we live the experience. Our challenges include the stereotype of what MS looks like (“You don’t look like…”, “You should be …”), as well as the hidden issues in MS (pain, MS hug, cognition and fatigue). Collaboration would be of great benefit to increase awareness of and education about MS. Researchers need to know patient concerns to drive relevant research. We want other stakeholder groups to work towards understanding each other (patients to doctors and doctors to patients) and listen to the patient, we know what we need. See us as individuals and recognize that it’s difficult to be a patient and not every symptom is MS. Listen, be transparent, collaborate and share information, treat us with respect and dignity.

Care Partners
There’s no time or place to address our needs and express our feelings. The rigors of being a support partner, dealing with invisible symptoms in people with MS is challenging. We have a tremendous amount to contribute about our loved one, frequently our perspective of symptoms is different. This input needs to be valued and respected. Collaboration with health care providers would be of great benefit, as we are not often asked for input. Involve us, use us to help recruit for research studies, and do meaningful studies on care partners.

Industry
We care about patients. The perception of pharmaceutical companies as the “dark side” or villain is hard. We’re trained in medicine and other fields and we care about people. We have a desire to improve lives. We need to frame what we’re trying to accomplish in regards to our organizations. We work in a complex and heavily regulated environment. Your insights impact all of our work. We want to collaborate. Collaboration would help us identify unmet needs, provide focus and assist with the direction of limited resources. Involve us, look to us for our expertise and our interest in helping.

Researchers
Research is difficult. There is a need for more funding and scientific rigor. Research is iterative, what data is collected today is amplified or negated by data collected tomorrow, and negative results aren’t published. Patients can provide more meaningful questions. We need input from underrepresented
populations -- men (especially in terms of MS), and minorities in general. It’s important to have placebo-controlled studies, but they are very hard to recruit for. We don’t have the understanding of the best process of engaging patients in research. We need to work together to develop methodologies.

**Advocacy**
It’s hard to know if what we are doing is making a difference on individual lives. Our challenges lie in establishing priorities. It’s important to collaborate when resources are limited, we can accomplish more. We would love help reaching the underserved, establishing priorities, and letting us know when we’re making an impact. We can work together to define these metrics.

On the second day, the group tackled the topic of transformational collaboration. Stimulus questions for discussions included, “What might transformational collaboration mean?”, and “What does it take to build and sustain transformational collaboration?” These inspired discussions led to the following definition:

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<th>Characteristics of a Transformational Collaboration</th>
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<td><strong>Shared goals and priorities:</strong> The collaboration is focused on achieving the goals of all parties in the collaboration - not the situation where some parties, for example people affected by MS, are contributing to goals determined by one party. The collaboration rises above individual priorities to focus on a shared priority.</td>
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<td><strong>Equal partnership:</strong> All parties are equal partners in the collaboration, even when one party controls the finances.</td>
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<td><strong>Disruption of an ecosystem:</strong> The collaboration is focused on achieving a major change in the ecosystem in which all parties are involved - for example shared treatment decision-making or patient-focused drug development.</td>
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<td><strong>Use of a novel process:</strong> The collaboration uses a novel process to achieve the desired outcomes -- for example, the Plan, Do, Study, Act iterative cycle used by Learning Health Systems.</td>
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<td><strong>Diversity of partners:</strong> The stakeholders participating in the collaboration are diverse in some way, or ways, initially -- priority, incentive, thought, etc. These “unlikely partners” respect and recognize their differences, are willing to be flexible, and come to a shared understanding. A contributing factor to the transformational aspect may the large number of diverse stakeholders participating.</td>
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<tr>
<td><strong>Transformative collaboration for iConquerMS™ bridges diverse stakeholder groups and reframes the research conversation and processes, supporting a shared aspirational mission that respects differences, encourages innovation, and delivers value.</strong></td>
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Other powerful phrases associated with transformational collaborations from group discussions included “bridging differences, unleashing human energies, unlocking greater value, having greater impact, and creating relationships across cultures.”

The final session for this year’s Summit was an activity focused on what might be possible if we built transformational collaborations. Using a process called Open Space, attendees identified topics they felt could have substantial impact on the lives of people affected by MS and broke into small groups to explore each topic more fully. Each small group grappled with questions like “What might be possible?”, “What resources or actions might be needed?”, and “What might be next steps?” Topics discussed included increasing the research capacity of iConquerMS through increasing enrollment, inclusion of care partners in all areas of MS research and healthcare, diversity and inclusion in MS research, leveraging of resources for the education and support of those affected by MS, patient engagement with pharmaceutical companies, ageism, telemedicine and nutrition.

Summit attendees were free to move around and contribute to each topic of interest to them. Each small group enthusiastically outlined a plan for their topic area and identified ways to move things forward. With the conclusion of the small group work, the two-day Summit had come to a close but the work has just begun! A “Next Steps Committee” (NSC) has been formed and they will work together over the next year to advance the work begun at the Summit on each of these areas of transformational collaboration. The NSC has actively taken up the discussion (back to phones and email) and is making great progress building on the work of the Summit. Stay tuned!

Interested in learning more about iConquerMS and getting involved in this novel initiative? Email Sara at sloud@acceleratedcure.org.
Repository Spotlight – Dr. Manu Rangachari, Laval University

Genetic analysis of MS patient DNA has played an important role in identifying genetic variants that correlate with disease. Analysis of ACP Repository DNA samples as a part of the International MS Genetics Consortium has helped identify these genetic variants.

Even more detailed insights into the contributions of genes to the MS disease process can be obtained by studying patterns of gene expression during disease. Gene expression involves reading and decoding the genetic (DNA) code to produce RNA and proteins. Both of these classes of "gene product" molecules play a role in development, metabolism and disease.

ACP has worked with several investigators who have studied gene expression using Repository samples (RNA samples). Some of these valuable data have been returned to ACP and made available to the MS research community for further analysis. Dr. Manu Rangachari, at Laval University in Quebec City, performed a re-analysis of some of these returned gene expression data and, using machine learning analytical techniques, identified several interesting changes that correlate with disease severity. This information may be very useful in developing MS diagnostics and in identifying new drug targets.

Whole blood is a "mixed bag" of many different immune cell subtypes. Separation of these cell types allows a finer analysis of gene expression in which one can look at changes in gene expression in each subtype. Dr. Rangachari will be using frozen samples from the ACP Repository for the next stage of his work. These samples consist of a different population of immune cell types that play a role in disease. Using a method called mass cytometry, Dr. Rangachari plans to separate these cells into immune cell subclasses (T-cell variants, B-cell variants, etc.), and look at the patterns in gene expression (proteins) and how these correlate with disease severity as well as how they change during disease progression. Dr. Rangachari's data, and other returned data sets, enrich the ACP Repository as a resource to advance and accelerate research into demyelinating diseases.
iConquerMS™ Spotlight – Step for MS

Exercise is good for your health, in general. New research shows it may help improve mobility and decrease symptoms in people with MS. STEP for MS (Supervised versus Telerehab Exercise Program for People with Multiple Sclerosis) is a collaborative effort between seven research sites in the U.S. and iConquerMS. This four-year study is comparing the outcomes of a 16-week exercise program conducted either at home, or in an exercise facility. A trained instructor will teach 500 participants how to exercise and will provide encouragement throughout the program. The iConquerMS portal is being used for data collection, and to communicate with participants. The investigators leading STEP for MS hope the evidence generated in the study provides people living with MS information to guide their choice of exercise options. Interested in joining the study? Contact information, as well as criteria for participation, can be found on the STEP for MS website. This study is just one of the many ways iConquerMS is facilitating and accelerating research on topics of importance to people affected by MS.