FasterCures
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June 25, 2014

The Honorable Fred Upton
Chairman
Energy and Commerce Committee
U.S. House of Representatives
2125 Rayburn House Office Building
Washington, DC 20515

The Honorable Diana DeGette
Member
Energy and Commerce Committee
U.S. House of Representatives
2125 Rayburn House Office Building
Washington, DC 20515

Sent via e-mail: Cures@house.mail.gov

RE: Comments on the 21st Century Cures Initiative

Dear Chairman Upton and Representative DeGette:

Thank you for the opportunity to provide ideas on how Congress can help accelerate the discovery, development, and delivery of promising new treatments to patients.

We applaud your leadership focusing our nation on the need to improve the way we search for cures. Today, there are more than 7,000 known deadly and debilitating diseases affecting our world, and yet we have viable treatments for only about 500. However, it can take an average of 15 years, can cost upwards of a billion dollars to get a new medicine from discovery to patients, and the entire the process is fraught with risk.

We must change this and we believe that we can. The opportunity to make a tremendous difference in millions of lives for generations to come is upon us. Thanks in large part to investment from the federal government and the private sector, we now have the knowledge, technology, and the human and financial resources to find cures. We need to marshal these resources to create better research tools, to develop more innovative approaches to research, and to change the pace of discovery and development to match the rushing pace of unmet medical needs.

At *FasterCures,* our mission is to save lives by saving time. We are a center of the Milken Institute, a nonprofit and nonpartisan organization determined to improve the medical research and development system so that we can speed up the time it takes to get important new medicines from discovery to patients. We are an action tank that works across diseases, disciplines, and sectors – academic institutions, government agencies, biotechnology and pharmaceutical companies, investors, medical

research foundations, philanthropic organizations, and patient advocacy groups – to identify and eliminate roadblocks slowing down medical progress.

We welcome the opportunity to share our perspectives in response to questions posed in the 21st Century Cures Initiative's "Call to Action" white paper, and in subsequent white papers, hearings, and roundtables. Below we outline principles that are core to any effort designed to improve the medical research system, but require increased incentives, broad adoption, and greater support – opportunities that we hope this bipartisan initiative will seize.

1) Put patients at the center of the discovery, development, and delivery process.

To galvanize improvements in medical research, we must first go back to basics. Investing in medical research is investing in hope for patients and their families, a healthier future, and a more productive workforce. We all stand to benefit from having an efficient and effective research system. To do this, we need patients as engaged partners – participating in and shaping the process.

- ***Ensure that patients are participating in and driving research.*** At the most fundamental level, we cannot conquer disease without unlocking patient information – medical records; biological material such as tissue, blood, and DNA; and our biology as observed in clinical trials – and making these available to clinical researchers in an efficient way. Beyond data collected in the laboratory setting, data on patient reported outcomes provide a comprehensive understanding of the effectiveness of a therapy.

    - ***Integrate research into electronic health records.*** As the healthcare system addresses the challenges of widespread adoption of electronic health records (EHRs), research capacity should be part of the architecture.[1] The complexity of issues that affect human health – from the genomic and proteomic levels to the culture and locale of the institutions that provide healthcare services – requires that there be a more comprehensive and collaborative approach to connecting the worlds of science and the clinic. The potential to gather data on thousands – even millions – of patient encounters provides an unprecedented opportunity to make the connection between research and healthcare delivery.

      In 2011, *FasterCures* released a report, "*Still Thinking Research,*" that found the health IT infrastructure was falling short of its potential to leverage research capabilities to increase our understanding of disease and accelerate the discovery and development of therapies. **The findings in this report are more relevant than ever.** Among our recommendations is to ensure that clinical trial screening and matching should be included as a measure for "Meaningful Use" of electronic health

record systems.[2] We believe this report contains promising case studies of what is possible; the question remains – *how can we prioritize this work to get to 21st century cures?*

- ***Develop a more efficient approach to clinical trials.*** One way to enhance patient participation in the research process is to make clinical trials more efficient. Without patients enrolling in clinical trials, the search for cures could slow to a snail's pace. Clinical trials play a central role in scientific advances, yet recruiting patients into clinical trials, and keeping them in trials once they've signed on, continue to be a daunting challenge. However, we are buoyed by the innovative approaches that are beginning to improve the efficiency of clinical trials through adaptive designs and a more targeted approach. For example:
  - The adaptive clinical trial design of I-SPY, in which drugs are assessed over the course of months – rather than decades – and the information used in real-time to direct the course of a trial.
  - The recently launched Lung Cancer Master Protocol (Lung-MAP)[3] trial is a promising and potentially transformative approach to clinical trials. It allows physicians to sort through multiple experimental drugs and match patients to the one most likely to succeed based on each person's unique tumor gene profile.[4]

These innovative and collaborative programs pave the path toward an improved approach to clinical trials. Now we must pay close attention to how we can scale and make these the standard moving forward. Janet Woodcock, director of FDA's Center for Drug Evaluation and Research, has called[5] for the creation of a federally funded clinical research infrastructure that provides a permanent network of resources (e.g., research sites, investigators, and support staff) be available to anyone conducting scientific inquiries in healthcare. We believe this connectivity can leverage existing resources and minimize duplication of efforts.

As well, the newly established PCORnet: The National Patient-Centered Clinical Research Network[6] will facilitate the use of both patient-generated and clinically-derived data to support research on a national scale.

Additionally, the federal government is uniquely poised to play a greater role in raising awareness about the value of clinical trials through public awareness campaigns, targeted education efforts to elevate the visibility clinical trial participation, and honoring the contributions made by clinical trial participants by thanking them.

- ***Learn from patient-driven solutions that are already transforming the R&D landscape.*** Now we must adopt disease-specific best practices to improve the system so that all can benefit. At *FasterCures,* we've chronicled[7] how HIV/AIDS activists' efforts in the 1980s transformed the medical research system to better respond to patients whose lives were on the line. Their

action effectively turned what was a death sentence into a chronic condition, if access to therapies was assured.

Through our TRAIN[8] (The Research Acceleration and Innovation Network) program, we are learning from scores of disease research foundations that have applied sound business strategies to move research forward. Often created by patients and families frustrated by the slow pace of the traditional research system, TRAIN groups are focused on one bottom line: finding a cure. Their urgency for results is transforming the medical research enterprise. Collaborative, mission-driven, results-oriented, and strategic in their use of capital, these groups are motivated solely by moving promising therapies from the laboratory bench to the patient's bedside as rapidly as possible.

2) Incentivize cross-sector collaboration throughout the R&D process.

Expediting cures requires academia, government, industry, investors, and nonprofits to come together. In addition to the challenge of understanding the biology of disease, researchers are continuously introduced to new tools that increase our ability to discover and develop drugs. However, these tools are complex and no single researcher – and very few organizations – has all the expertise and resources to take the challenge on their own. These complexities are prompting collaborations among competing organizations with shared interests. *FasterCures* has been studying collaborative approaches since our inception and has developed the following programs that we believe will help inform the Committee's work.

- ***Develop appropriate means to measure the impact of public-private partnerships.*** We have found a rapid adoption of public-private partnerships that use the consortium model to advance biomedical research. *FasterCures* began to assess[9] the landscape of these collaborations, identifying almost 400 that have been launched since 1995, with 64 emerging in 2012 alone.[10] This model of partnership provides a neutral ground to coordinate the sharing of risks, costs, resources, data, and expertise in the pursuit of a unified research mission. Government agencies have played a large role in initiating and participating in research consortia, with interests that range from advancing broadly shared solutions to economic development. Approximately 20 percent of these consortia aim to advance the goals of a regulatory agency, such as the US Food and Drug Administration.

  We believe that public-private partnerships like the consortium are the wave of the future and for these efforts to succeed, **it is critical to understand the operational tools and metrics used to start and run these complex collaborations.** We developed our Consortia-pedia project[11] to serve as a mechanism for any entity wishing to better understand the research-by-collaboration trend and its impact on medical research and development.

- ***Create opportunities to make cross-sector collaborations happen.*** Partnering[12] has become a core business strategy for pharmaceutical and biotechnology companies with shared goals of getting a product to market. As the medical research system continues to evolve, we're seeing the partnering strategy expand to include all sectors of the medical research enterprise. In an effort to encourage collaboration as a strategic business imperative, we hold our Partnering for Cures[13] meeting. We have seen transformative efforts rise to the top when nontraditional allies with shared goals come together to get things done. We've seen a number of collaborative efforts come to fruition, including:
    - A collaboration among three nonprofit entities to support development of therapeutics for retinal disease
    - An investment partnership between a nonprofit and a biotech company that advanced early-stage research on a cancer drug candidate
    - A partnership between a nonprofit foundation and a pharmaceutical company to jointly fund three young investigators engaged in novel research in brain disorders

The federal government has a unique role in driving these collaborative efforts forward by actively engaging in public-private partnerships to pursue a unified research mission. Such collaborations also leverage federal investment and ensure greater sustainability.

3) Encourage novel financial solutions that address R&D's riskiest endeavors.

FasterCures senior fellow Bernard Munos, a pharmaceutical industry veteran who has analyzed the biopharmaceutical industry's productivity, has said "*everyone loves biomedical innovation, but the industry's annual output of 25 to 35 new drugs is a lousy return for its $135 billion R&D spending.*"[14]

The biopharmaceutical industry needs fresh organizational structures to improve capital efficiency and value creation during the early stages of the drug development process. We need models that break down the R&D value chain to offer an acceptable return on investment through each stage of development, effectively spreading the investment risk and reward throughout the entire R&D process – some models that show promise are outlined below.

Examining innovative financial strategies that could accelerate medical progress is at the heart of the missions of the Milken Institute and *FasterCures*. This brought us to convene[15] a Financial Innovations Lab™ designed to look at how different financial structures can help improve the risk-return ratio for early-stage research to make it a more attractive investment opportunity with greater financial and societal rewards. A range of research and funding models were considered that, when implemented, either independently or in combination, could improve financing for early-stage R&D. These models include:

- ***The Distributed Partnering Model***[16] focuses on moving products through the development pipeline, not on creating a new company around each research project. Risk is managed by product portfolio diversification, and investors bet on an experienced management team instead of a single, early-stage asset. Costs are also decreased by utilizing a virtual company structure that outsources experiments and trials to trusted partners. The model is being vetted as a new approach to drug development, with a focus on asset value creation, not company development.

- ***Leveraging Philanthropic Capital: Fast Forward*** is a venture philanthropy and wholly owned subsidiary that funds promising, early-stage work in multiple sclerosis to expand the field of candidates for later-stage investment. In exchange for capital, Fast Forward accepts either warrants for equity purchase or enters into repayment agreements (with a multiple for the investment).

- ***Government-Backed Ventures: Israeli Life Sciences Fund*** is a venture capital-like investment fund created by the Israel government that leverages government funds to enhance the potential returns for private investors in the biomedical research field. The fund structure is finalized, and initial investments will likely begin in the next couple of years.

- ***Early Stage Megafund****.* Proposed by Andrew Lo, the Charles E. and Susan T. Harris Professor at the MIT Sloan School of Management and director of the MIT Laboratory for Financial Engineering and a Milken Institute senior fellow, this model funnels up to $30 billion into the discovery of cancer drugs. Lo proposes "a financial structure in which a large number of biomedical programs at various stages of development are funded by a single entity to substantially reduce the portfolio's risk."[17] It would expand the pool of capital available for life science investment by bringing together investors who would not normally fund research at top biomedical universities in exchange for a small percentage of all royalties from successful drugs or licensing revenues that result.

FasterCures **believes that there is an urgent need for more creative thinking about and models for financing large, high-risk, long-term investments that could lead to biomedical breakthroughs (including within the biopharmaceutical industry).** We must also carefully consider the role the federal government should play to encourage and incentivize these novel approaches to financing.

4) Invest in our basic *and* translational research infrastructure.

Eric Lander, president of the Broad Institute of Harvard University and the Massachusetts Institute of Technology reminded us during *FasterCures'* Celebration of Science[18] held in September 2012 that "*we underestimate how powerful it is to be called to the service of science.*

We need to light people's fires. Tell them, 'we need you,' the same way Jim Watson once said to me, 'do something with the genome!'"

We are now at the dawn of a new scientific revolution that we hope will not only reduce the cost of healthcare but will save, extend, and improve the quality of people's lives worldwide. Processes that once took years and cost millions now can be performed quickly and inexpensively. Consider that the original sequencing of the human genome took more than a decade and cost billions of dollars; today, it takes nearly two hours and $1,000.

As transformative as these advances may be, they're merely a prologue of what's to come if we maintain our steadfast commitment to all phases of medical research.

- ***Strengthen basic research.*** We must strengthen our current publicly-funded academic research infrastructure, as guided by the policies and practices of the National Institutes of Health (NIH), the single largest sponsor of biomedical research in the world, and the National Science Foundation (NSF). We need our science agencies to continue its focus on basic research to unlock the underlying questions of biology and pave the path to more effective cures.

- ***Support translational research.*** Years of discovery, which has included the genome and information revolutions, now call for effective and efficient means to translate these into products that can help patients. The success of the translation from laboratory bench to patient bedside depends on the joint efforts of all funders, including the NIH, NSF, academic institutions, nonprofit foundations, the pharmaceutical and biotechnology industries, and payers.

  There is great momentum in science, and we are poised to start solving several of these problems, particularly with the existence of the new National Center for Advancing Translational Science (NCATS) at the NIH. NCATS focuses not on what's different about disease but what is common. Networked programs such as the Clinical and Translational Science Awards at the NIH that are significantly advancing systems improvement in the translational phase and are primed, with the proper support, to foster more integrated research across communities.

- ***Invest in the next generation of scientists.*** If we fail to make medical research a national priority, not only will we be unable to deliver much needed therapies for patients, but also, **we will find young American scientists seeking more promising opportunities in other fields or in countries with a more robust medical research infrastructure. It's already happening, and will continue to happen unless we make science a national priority.**

  Because of the erosion of resources at the NIH, the odds of a scientist being awarded an NIH

grant are at historically low levels. We need to follow through on the implicit promises our country's leaders made to this generation of scientists, or risk losing the next generation. America's leaders told these students that there is a great future in pursuing STEM education. Those who heard this call, and then persevered through as much as 15 years of professional training, now find their opportunities are shrinking. As *FasterCures* founder Michael Milken has noted, *"unlike delaying construction of a bridge that can be resumed in a few years, if we lose a generation of scientists, there's no way to rebuild that human capital quickly."*

5) Ensure sustainable and predictable funding for science agencies – including the National Institutes of Health and U.S. Food and Drug Administration – so they can continue to deliver on their mission to improve and promote public health; and ensure that the U.S. continues to lead the world in biomedical innovation.

- ***Provide the NIH with predictable and sustainable funding.*** The 27 institutes and centers that make up the NIH exist to make important discoveries that improve health and save lives. NIH research since the 1970s has helped double survival rates for some cancers and given survivors a greatly improved quality of life. It's produced effective AIDS therapies that transformed the disease from a death sentence to a chronic condition for many people. Cardiovascular research under NIH grants has led to treatments that saved more than 1 million American lives. All this and more at a cost per citizen of about $1.50 a month, a tiny fraction of what we spend caring for the sick.[19]

  NIH Director Francis Collins in his comments to the first 21st Century Cures initiative roundtable said that *"the best way to accelerate medical cures is to make sure that NIH researchers are supplied with a steady, predictable source of grant funding."*

- ***Adequately fund the FDA's essential missions.*** The potential of turning promising scientific discoveries into therapies that can improve health also requires an FDA with the resources and expertise to review and approve medical solutions in a timely and efficient manner.

  Americans receive an array of public health benefits from the FDA, including life-saving medicines approved as fast as or faster than anywhere in the world, confidence in the medical products they rely on daily, and a food supply that is among the safest in the world. The FDA regulates 25 percent of every consumer dollar, and is a critical component to bringing safe and effective medical solutions to patients. In addition to its public health role, the agency and the industries it regulates have a significant, positive role in our nation's economy and in stimulating economic growth and job creation.

Consider that the biomedical sector employs over 1.3 million people and another 5.8 million in related industry sectors. At the same time, FDA faces pressure due to the globalization of the food and drug supply chain; in 2012, 80 percent of the manufacturers of active drug ingredients were located outside the U.S., and more than half of medical devices were imported.

- ***Assure our nation's global leadership in biomedical innovation.*** The advances emerging from American laboratories are some of our best ambassadors throughout the world. Their impact is greater than all the foreign aid we've ever dispensed.

  U.S. industry leadership, so carefully cultivated over the past 30 years, is eroding. Europe and Japan are working to close the gap, while China, India, and Singapore have improved the quantity and quality of their scientific research and developed mechanisms to support entrepreneurs and strengthen commercialization.

  Over the past decade, R&D expenditures, as a share of GDP, have remained nearly flat in the United States, while they have increased by nearly 50 percent in South Korea and nearly 90 percent in China.[20] The NIH provides a striking example of this disturbing sea change. For more than a decade, NIH funding has been steadily weakening. China, India, Japan, the U.K., Singapore, and other nations are catching up quickly as they increase research budgets as much as 30 percent a year[21], while the NIH budget has lost nearly 25 percent of its purchasing power since 2003. China alone has pledged to devote $308.5 billion to biotechnology between 2012 and 2017, compared with a projected $160 billion for all NIH programs combined.[22]

We believe that with your leadership, the House Energy & Commerce Committee working closely with other congressional committees, we can commit the resources necessary to ensure America retains and bolsters its leadership in biomedical research and innovation.

In summary:

The decisions we make today will have implications long into the future. Now is the time to lean in and ensure everyone understands the NIH's value proposition and relevance to patients and the economy, because it already takes too long to get from an idea to a treatment. In the U.S., every 68 seconds, someone develops Alzheimer's disease. Every 24 seconds, someone is diagnosed with cancer. Every 18 seconds, someone is diagnosed with diabetes. Patients' lives are literally on the line. At *FasterCures,* we often say that time equals lives. We cannot let the possibility of a cure sit in a cupboard instead of pursuing its full potential to benefit patients, families, and communities.

We present the following principles that we believe must be considered if we are indeed to create a 21st Century Cures enterprise:

1. Put patients at the center of the discovery, development, and delivery process.

2. Incentivize collaboration across sectors throughout the R&D process.
3. Encourage novel financial solutions that address R&D's riskiest endeavors.
4. Invest in strengthening our basic *and* translational research infrastructure.
5. Ensure sustainable and predictable funding for science agencies – including the National Institutes of Health and U.S. Food and Drug Administration – so they can continue to deliver on their mission to improve and promote public health; and ensure that the U.S. continues to lead the world in biomedical innovation.

We seem to be at an inflection point in the dialogue within the biomedical research establishment where action to address these challenges is possible. We need to take advantage of this moment, and we need to bring the public and policymakers into the conversation.

Thank you again, distinguished Committee members, for your service to our nation. I appreciate the opportunity to present this written testimony. I would be happy to provide additional information.

Sincerely,

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July 1, 2014

The Honorable Fred Upton, Chairman
The House Committee on Energy & Commerce
2125 Rayburn House Office Building
Washington, D.C. 20515

RE: Revised NORD Comments

Dear Chairman Upton:

On behalf of the 30 million men, women, and children affected by one of the nearly 7,000 known rare diseases, the National Organization for Rare Disorders (NORD) thanks Chairman Upton and the Energy and Commerce Committee for their continuing support of the rare disease community. We also thank you for commencing the 21st Century Cures Initiative, a bi-partisan effort within the House Committee on Energy and Commerce aimed at improving the treatment discovery, development, and delivery process in the United States.

NORD is a unique federation of voluntary health organizations dedicated to helping people with rare "orphan" diseases and assisting the organizations that serve them. NORD is committed to the identification, treatment, and cure of rare disorders through programs of education, advocacy, research, and patient services.

We welcome the opportunity to comment on the 21st Century Cures Initiative's first white paper titled, "A Call to Action". This white paper raises various questions on how to improve the biomedical innovation cycle and ecosystem, including questions on incentives for drug discovery and development, unnecessary regulatory hurdles within the Federal government, and barriers to accessing treatments once on the market.

In response to these questions, NORD has developed the following legislative concepts. We are excited about the proposals below, and look forward to discussing them with the Energy and Commerce Committee as well as the entire Rare Disease Community. We also recognize that the below concepts represent only a part of the needed reforms to the treatment discovery, development, and delivery cycle for the rare disease patient. We look forward to discussing further ideas as the 21st Century Cures Initiative continues.

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1. Reinstating the Orphan Products Board

To facilitate coordination more effectively among the Federal agencies with jurisdiction over the discovery, development, and delivery of orphan therapies and between these Federal agencies and the rare disease community, NORD recommends that the Committee reinstate the Orphan Products Board within the Department of Health and Human Services. The Orphan Products Board, a now dormant entity in practice but still alive in statute (42 U.S. Code § 236), was established in the Orphan Drug Act in 1983 to "promote the development of drugs and devices for rare diseases or conditions and the coordination among Federal, other public, and private agencies in carrying out their respective functions relating to the development of such articles for such diseases or conditions".

A reinvigorated Orphan Products Board would be beneficial for the entire rare disease community. First, it would facilitate greater communication and collaboration between the Food and Drug Administration (FDA) and the National Institutes of Health (NIH), thus strengthening the bonds between the orphan drug discovery process and the development and approval processes.

Second, a reinvigorated Orphan Products Board would facilitate greater communications between FDA and NIH and the Federal agencies that are instrumental in the delivery of orphan products, such as the Centers for Medicare and Medicaid Services (CMS) and the Department of Defense (DOD). These collaborations will assist in ensuring that critical orphan therapies will actually reach the rare disease patients who need them.

2. Enhancing the Focus on Clinical Trial Design and Endpoint Development within the NIH Division of Clinical Innovation within the National Center for Advancing Translational Sciences (NCATS)

NORD also advocates enhanced focus on rare disease clinical trial design and clinical endpoints within the NIH Division of Clinical Innovation. Clinical trial design is of a paramount importance when developing any therapy, but is especially important for orphan therapies, where innovative trial designs are often needed to accommodate the small disease population. Many companies that are developing orphan therapies are small, inexperienced companies that have little practice in designing clinical trials in general, let alone trials for diseases that require an innovative trial design because of factors such as small or geographically dispersed patient populations.

We would encourage enhanced focus within the Division of Clinical Innovation on providing leadership and expertise in clinical trial design as well as consultation with sponsors on clinical trial design.

In addition, all clinical trials must have agreed-upon endpoints. The role of the NIH Division of Clinical Innovation should include enhanced emphasis on helping develop appropriate endpoints for studies. This leadership early in the research process would be helpful in preventing companies

and/or patient organizations from spending years and millions of dollars on biomarker research only to receive a rejection from the FDA. It would be especially beneficial to the rare disease patient population, as clinical endpoints and biomarkers are particularly difficult to establish within rare, genetic diseases.

3. Training of Medical Professionals in Rare Diseases

Currently, the Federal government has various programs to incentivize medical professionals in training to enter certain specialties. NORD proposes that the Federal government establish similar incentives to study and enter fields relating to treating or researching rare diseases.
There are various options Congress could take to increase the number of U.S. physicians who are knowledgeable about rare diseases. For example, Congress could implement subsidized training programs within the NIH to encourage research into rare diseases. Congress also could reform the Graduate Medical Education (GME) system to incentivize residency programs on rare diseases.

The U.S. needs more physicians and researchers educated in rare diseases. An increase in medical and scientific professionals with rare disease experience will lead to faster diagnoses, more efficient and effective care, faster discovery of cures, and overall benefits to the health system, as rare disease research will be more easily translated to more common diseases.

4. Establishing a Rare Disease Ombudsman within the Department of Health and Human Services (HHS)

Currently, the rare disease population has representation within both the FDA and the NIH, in the FDA Office of Rare Diseases and Office of Orphan Product Development, and within the NIH at the Office of Rare Disease Research. However, there is no rare disease representation within the parent Department of Health and Human Services, to ensure access to approved products. NORD proposes the establishment of a Rare Disease Ombudsman within HHS to ensure that patients with rare diseases are not subject to barriers in accessing quality coverage that meets their unique healthcare needs. The Rare Disease Ombudsman would:

1. Provide recommendations to the Secretary regarding guidelines on appeals and grievance processes and protections that ensure patients with rare disorders receive access to high quality treatment.
2. Review and advise the Secretary regarding benefit design features critical to patients with rare disorders and unmet medical needs, including, but not limited to, access to prescription drugs, out of pocket costs, and network adequacy.
3. Serve as a single point of contact for patients with rare diseases to address unique issues that impact access to care.

The HHS Rare Disease Ombudsman also would play a role in ensuring that rare disease patients are accessing the necessary care through insurance plans offered under the state marketplaces.

5. Ensuring Access to Orphan Therapies by Addressing Prohibitive Cost-Sharing Structures within both Public and Private Plans

In the 21st Century Cures Initiative's first white paper titled "A Call to Action," the Committee asks, "What uncertainties or barriers currently exist in post-market, real world delivery settings – legal, regulatory, commercial, or otherwise – and how should they be addressed?"

One of the major hurdles in ensuring patient access to orphan therapies is the increased use of high cost-sharing structures within drug plans. These prohibitive cost-sharing structures often involve upwards of 40% co-insurance on drugs placed on the highest tier within the formulary, also known as the specialty tier. These co-insurance requirements require egregious out-of-pocket costs to be paid by the patient on drugs that are extremely expensive in the first place.

There are many times when therapies are not on a plan's formulary. This often results in out-of-pocket limits no longer being applicable, thus subjecting patients to excessive out-of-pocket costs with no cap.

The Energy and Commerce Committee must address this growing trend of pharmaceutical tiering structures with a specialty tier with high co-insurance levels. Even if the Committee is able to improve the drug discovery and development process greatly, as it hopes to do under this initiative, if patients cannot access the drugs due to their prohibitive cost-sharing requirements, the patient experience will not be improved at all.

6. Reforming the Institutional Review Board (IRB) System for Assessing New Therapies

Currently, all clinical trials for new treatments, whether a drug, biologic, or medical device, must receive approval from an IRB. The systems used by IRBs are rarely transparent, and currently there is a gross oversaturation of small IRBs all using different standards, and rarely contributing to the efficacy of the drug. The current system can lengthen the drug development process.

NORD recommends that Congress study the IRB system to see if reforms would allow for treatments to reach patients faster.

7. Creating an "Orphan Protected Class" within the Medicare Part D Program

Recently, CMS proposed the removal of three protected classes from the Medicare Part D drug coverage system. After a unified outcry from the patient population, CMS withdrew the proposal.

NORD acknowledges the need for reform within the Medicare Part D Protected Class system, and would welcome a discussion with CMS with all stakeholders at the table. NORD also proposes that CMS add a Protected Class for orphan therapies. There are rarely alternatives to orphan therapies that

patients with rare diseases rely on, yet these drugs are no more protected than any other drug within the Medicare Part D program.

By ensuring coverage of orphan therapies within the Medicare Part D Program, Congress will assure rare disease patients that they will receive the live-saving coverage they need under the Medicare program.

8. Establishing Clearer Federal Policies with Regard to Off-label use of Drugs

Many rare disease patients use drugs outside of FDA-approved uses, based on the judgment of their physicians that the drugs will benefit them and will not be harmful. Recently, reimbursement for off-label uses has been denied. Congress needs to address this issue aggressively, as many drugs will never be tested for the rare disease patient and, without reimbursement for appropriate off-label use as determined by the physician, these patients will be denied access to approved therapies that may change or save their lives.

At the same time, the government severely restricts what drug companies can say about new research and about off-label uses, thus cutting off information from the most knowledgeable sources. The Congress should seek new policies that permit drug companies to share appropriate information without fear of enforcement action.

Thank you again for the opportunity to engage in this exciting and much-needed initiative. We look forward to working with Chairman Upton and the Energy and Commerce Committee as the 21st Century Cures Initiative continues, and we are grateful for the Chairman's recognition of these extremely important issues within the rare disease community.

For questions regarding NORD or the above comments, please contact Diane Dorman, Vice President of Public Policy, at [redacted]

Sincerely,

[redacted]

Peter L. Saltonstall
NORD President and CEO

24 June 2014

Re: 21st Century Cures

Dear Chairman Upton and Rep. Diana DeGette,

We congratulate you on and are highly supportive of the 21st century cures project. These are significant issues which need to be resolved in order to progress the health of the nation. As individuals, we believe that your effort would benefit tremendously by taking advantage of the significant amount of work which has already been done in this area by the IOM Roundtable on Translating Genomic-Based Research for Health (http://www.iom.edu/Activities/Research/GenomicBasedResearch.aspx). Over the past seven years, the Roundtable has brought together leaders from industry, academia, government, patient groups, provider groups, and other stakeholders to discuss, scrutinize, and illuminate issues in genomic medicine ranging from drug discovery and development to molecular diagnostics to clinical implementation. We invite you and your colleagues to examine the breadth of work which the Roundtable has done that address the issues that are at the heart of the 21st Century Cures Project and engage with this group as appropriate to advance the development of cures.

Sincerely,

V.M. Pratt, Ph.D., FACMG, Indiana University School of Medicine, Indianapolis, IN

Debra G.B. Leonard, M.D., Ph.D., University of Vermont College of Medicine, Burlington, VT

Mary Relling, Pharm.D., St. Jude Children's Research Hospital, Memphis, TN

Janet K. Williams, Ph.D., RN, Representative of the American Academy of Nursing; University of Iowa, Iowa City, IA

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Paul R. Billings, M.D., Ph.D., CMO (consulting), Thermo Fisher Scientific Inc.