



February 28, 2022

The Honorable Diana DeGette
U.S. House of Representatives
2111 Rayburn House Office Building
Washington, DC 20515

The Honorable Fred Upton
U.S. House of Representatives
2183 Rayburn House Office Building
Washington, DC 20515

Sent electronically

Re: H.R. 6000: Cures 2.0 Act

Dear Representative DeGette and Representative Upton:

The Personalized Medicine Coalition (PMC), a multi-stakeholder group comprising more than 220 institutions and individuals from across the health care spectrum, thanks you for your continued efforts to advance the *Cures 2.0 Act*. This legislation has the potential to alleviate many of the obstacles facing personalized medicine. In July 2021, PMC submitted commentsⁱ on the *Cures 2.0 Discussion Draft*, and we were pleased to see some of the changes we suggested incorporated into the version of the *Cures 2.0 Act* introduced in Congress on November 17, 2021.ⁱⁱ The preceding *21st Century Cures Act* made meaningful regulatory changes and provided essential financial support for many of the breakthroughs in personalized medicine that patients are benefitting from today. As the *Cures 2.0 Act* moves forward, we offer the following additional comments on how to improve the bill so that it can continue to advance an individualized approach to care.

Personalized medicine is an evolving field in which physicians use diagnostic tests to determine which medical treatments will work best for each patient or use medical interventions to alter molecular mechanisms that impact health. By combining data from diagnostic tests with an individual's medical history, circumstances and values, health care providers can develop targeted treatment and prevention plans with their patients.

Personalized medicine is helping to shift the patient and provider experiences away from trial-and-error treatments of late-stage diseases in favor of more streamlined approaches to disease prevention and treatment, which will lead to improved patient outcomes, a reduction in unnecessary treatment costs, and better patient and provider satisfaction. PMC's members are leading the way in personalized medicine and recommend that patients who may benefit from this approach undergo appropriate testing and tailored treatment as soon as possible during their clinical experiences.

Personalized medicine is delivering better efficacy, improvements in overall survival, and a reduction in adverse events for patients.ⁱⁱⁱ However, PMC has observed that the field continues to experience challenges in delivering timely individualized care.

BOARD OF DIRECTORS

President
Edward Abrahams, Ph.D.

Chair
Jay G. Wohlgemuth, M.D.
Quest Diagnostics

Vice Chair
William S. Dalton, Ph.D., M.D.
M2Gen

Treasurer
Mark P. Stevenson, M.B.A.
Thermo Fisher Scientific

Secretary
Michael S. Sherman, M.D., M.B.A.
Point32Health

Bonnie J. Addario
GO₂ Foundation for Lung Cancer

Antonio L. Andreu, M.D., Ph.D.
EATRIS

Randy Burkholder
PhRMA

Kevin Conroy
Exact Sciences

Stephen L. Eck, M.D., Ph.D.
MacroGenics

Lori Frank, Ph.D.
Alzheimer's Foundation of America

Brad Gray
NanoString Technologies

Kris Joshi, Ph.D.
Change Healthcare

Richard Knight
American Association of Kidney Patients

Peter Maag, Ph.D.
CareDx

Anne-Marie Martin, Ph.D.
GlaxoSmithKline

J. Brian Munroe
Bausch Health Companies

Lincoln Nadauld, M.D., Ph.D.
Intermountain Healthcare

Elizabeth O'Day, Ph.D.
Olaris, Inc.

Michael J. Pellini, M.D., M.B.A.
Section 32

Kimberly J. Popovits
10x Genomics

Lauren Silvis
Tempus

Apostolia Tsimberidou, M.D., Ph.D.
MD Anderson Cancer Center

Michael J. Vasconcelles, M.D.
Flatiron Health

Werner Verbiest
Johnson & Johnson

Obstacles impeding the integration of personalized medicine are often caused when scientific developments outpace updates to our regulatory, coverage and payment, and health care delivery systems. In the current environment, patients, providers, and other health care stakeholders are not always prepared to make informed decisions about personalized medicine based on an assessment of all available diagnostic and treatment options. We believe that the *Cures 2.0 Act* could alleviate some of these challenges.

Statement of Neutrality

Many of PMC's members will present their own responses to the *Cures 2.0 Act*. PMC's comments are designed to provide feedback so that the general concept of personalized medicine can advance, and are not intended to impact adversely the ability of individual PMC members, alone or in combination, to pursue separate comments with respect to this legislation or related issues.

TITLE I: PUBLIC HEALTH

The COVID-19 pandemic was an unprecedented historical experience for the world and the entire personalized medicine community. Leaders in personalized medicine worked rapidly to scale the United States' diagnostic capacity, develop treatments for patients suffering from COVID-19 infection, and develop vaccines, all while continuing to learn about individual responses to the SARS-CoV-2 virus and its variants. As vaccination rates climb and infection rates slow in this country, we appreciate the bipartisanship you continue to demonstrate by ensuring that the *Cures 2.0 Act* allows for further understanding of the implications of COVID-19 as well as our opportunities to enable a better response to any future pandemics.

Sec. 101 of the *Cures 2.0 Act* calls for a series of national meetings to serve as the basis for an ongoing long-COVID learning collaborative with individuals and organizations representing key sectors of the health care community. **PMC supports the creation of this collaborative and thanks you for adding clinical laboratories to the list of required stakeholders in Sec. 101.** Clinical laboratories were the first to validate and scale novel tests designed to detect the SARS-CoV-2 virus and they continue to perform millions of tests for COVID-19.

The COVID-19 pandemic revealed vulnerabilities within our nation's health and security infrastructure that must be dealt with before the United States faces another devastating emergency. Sec. 102 of the *Cures 2.0 Act* calls for a national testing and response strategy based on lessons learned, and best practices developed, as a result of the COVID-19 pandemic. PMC supports the emphasis in this section on testing, data sharing infrastructure, administration of vaccines and therapeutics, and medical supply readiness to mitigate future pandemics and public health emergencies. However, strategies for testing should be comprehensive, addressing all testing types, and should not focus solely on point-of-care tests and tests at non-medical sites. **We suggest revising Sec. 102 (page 9, lines 9-10),¹ to reference "strategies for**

¹ Page and line numbers referenced in our comments refer to the version of the *Cures 2.0 Act* linked in the November 16 press release. This version is dated November 5, 2021, 3:17 p.m.

tests that are comprehensive and address all test purposes, methodologies, and settings” and remove specific mention of point-of-care testing and tests at non-medical sites.

Sec. 105 of the *Cures 2.0 Act* provides incentives and pathways for the development of critically needed innovative antimicrobial drugs. We applaud the inclusion of these provisions but urge that Sec. 105 be amended to require, rather than merely permit, the development of appropriate use plans for such antimicrobial drugs in partnership with the Secretary of HHS, infectious disease experts, diagnostics experts or developers, and laboratory experts, to ensure that all appropriate expertise is included in the development of such plans. **We suggest revising Sec. 105 (page 27, line 12) to state these appropriate use plans “shall” be developed.** This is particularly important to the extent that personalized medicine diagnostics may be used to guide drug selection or dosing.

TITLE II: PATIENTS AND CAREGIVERS

Diagnostic testing underpins personalized medicine. These tests can sometimes reveal mutations that make some patients more susceptible to diseases than others. They may also uncover characteristics of cells and tumors, or the functional status of specific biochemical pathways, that can be targeted by available therapies. For some patients, targeted therapies are safer and more effective than traditional treatments.

Due to our relatively advanced understanding of how genes influence human health, genetic and genomic sequencing-based diagnostics are the most commonly used tools in personalized medicine. In recent years, however, scientists have also made notable progress in assessing biomarkers beyond the genome, such as proteomic and metabolic biomarkers.^{iv} There has also been unprecedented progress in developing molecular imaging tools that are advancing personalized medicine. By providing more precise information, this enhanced predictability may improve the diagnosis of the disease by selecting the most effective treatments. Not only does this improve the rate of successful treatment it also avoids unnecessary medical costs as the result of the trial-and-error treatment process.

Health systems are still working on developing and adopting the procedures that will be necessary to facilitate the widespread utilization of personalized medicine. For this reason, patients and their caregivers must educate themselves about the field and discuss it with their physicians. To facilitate patient and caregiver education, PMC launched a campaign called *More Than a Number*, which introduces the concept of personalized medicine, includes a list of questions for patients to ask during six key stages of their interactions with the health care system, and describes the ins and outs of insurance coverage in the United States.^v

Because we are moving away from a “one-size-fits-all” approach to medicine to one that is based on the individual patient’s particular characteristics of disease, it is important that patients collaborate closely with their physicians, as well as their entire health care team, in developing prevention, diagnosis and treatment plans. **PMC therefore supports the provisions detailed in Sec. 201 and Sec. 202 of the *Cures 2.0 Act* that would fund educational programs for caregivers and require the Centers for Medicare & Medicaid Services (CMS) to solicit input on promoting greater health literacy.** We

urge the agency to incorporate content that helps guide patient interactions with physicians and their entire health care team in this era of personalized medicine.

Personalized medicine also depends on a diverse, equitable, and inclusive biomedical research enterprise to generate reliable evidence to inform health care interventions for all patients. The health care system has more to do to engage adequately representative cohorts of patients in basic biomedical research and clinical trials. Without representative clinical trials, some clinical care may be delivered and therapies may be prescribed based on assumptions that have gone untested in patients from underrepresented populations, risking disease progression and exacerbating health disparities.

PMC recently convened leaders from across the health care spectrum who are contributing to the development of research programs in the public and private sectors to uncover sociocultural, behavioral, and systemic factors that perpetuate inequities in research participation and outcomes.^{vi} Other recent initiatives spearheaded by PMC members have identified ideas that are essential to effective strategies that reduce disparities and accelerate cures for all patients such as working with health systems outside of academic medical centers, developing community networks, leveraging technology, and even reaching out to patients directly.^{vii} By requiring updates from federal health agencies on efforts to improve diversity in clinical trials while identifying barriers to participation, Sec. 203 of the *Cures 2.0 Act* would facilitate positive steps toward broadening our collective understanding of strategies that can be adopted to cultivate a more inclusive biomedical research enterprise. Expanding access to clinical trials beyond academic medical centers could also play a key role in improving diversity in clinical trials.^{viii} **Therefore, to ensure a broad representation of private-sector perspectives are included on the task force for making ClinicalTrials.gov more user friendly, we suggest you specify representatives of “contract research organizations, academic medical centers, and other health care institutions” in the list of entities in Sec. 203 (page 58, lines 8-13) designated to serve on a task force.** In addition, should the Government Accountability Office (GAO) study on barriers to participation in clinical trials be conducted as outlined in this section, it would also be helpful if the report considered how expanding recruitment for clinical trials beyond academic medical centers could address participation barriers. PMC plans to release a report on related topics in the coming months. The report may be useful for Department of Health and Human Services (HHS) leadership if the provisions in the *Cures 2.0 Act* are enacted.

PMC generally supports Sec. 204 of the *Cures 2.0 Act*, which will continue work on the collection and reporting of patient experience data (PED). Patients are experts in their own experiences of their diseases and conditions. They are also the end consumers of medical products. We believe that considering patient journeys and understanding patient preferences about their care can advance activities to positively impact the design and conduct of premarket clinical studies, benefit-risk assessments, and post-market evaluation. PED collection is largely qualitative and methods are still emerging. PED can also be collected by anyone and submitted to the U.S. Food and Drug Administration (FDA) as part of a clinical trial or outside of a specific trial. **Thus, the call for “standardizing” PED in Sec. 204 (page 59, lines 3-23) will prove challenging. PMC continues to recommend removing this requirement and instead encouraging “models” of PED development and presentation.** Models may inform PED generation and its use in various therapeutic contexts.^{ix}

TITLE III: FOOD AND DRUG ADMINISTRATION

FDA serves as an important gateway for many breakthrough personalized medicine products entering the market. Various centers at the FDA have responsibilities for evaluating medical products for their safety and efficacy. As personalized approaches to treatment and prevention have grown, new types of drugs, tools, and technologies using a patient’s genetic and other personal health information have challenged existing regulatory frameworks and processes.

Digital health is an approach focused on using such technology to monitor and provide relevant health-related data about individuals. These technologies include a rapidly expanding array of consumer products and wearables, as well as complex clinical care platforms.^x The collection of accurate digitized information that can be integrated with other data is essential to personalized medicine, and we are pleased to see it highlighted as a priority in the *Cures 2.0 Act*.

In 2020, FDA’s Center for Devices and Radiological Health launched the Digital Health Center of Excellence to build partnerships advancing the development and FDA’s review of cutting-edge digital health technologies. Since then, FDA has also released an action plan for innovation in medical device software using AI and machine learning, held a public meeting to discuss the use of real-world data generated from patients through digital health technologies, and published learnings from its pilot precertification program for medical device software. **We continue to believe the report to Congress from HHS on collaboration and alignment in regulating digital health technologies proposed in Sec. 301 of the *Cures 2.0 Act* can assist FDA in building on the foundation it has already established and further inform FDA’s approach to regulatory oversight of these emerging technologies.**

The *21st Century Cures Act* recognized the cost, time, and complexity associated with the research and development of new medicines, calling for the incorporation of novel clinical trial designs. The FDA released an RWE (real-world evidence) framework in 2019 and subsequently acknowledged that pragmatic and hybrid clinical trials, including decentralized trials conducted at the point of care incorporating RWE, can help clinical trials become more agile and efficient and can allow patients to receive treatments from community providers without compromising the quality of the trial or the integrity of the data collected. **We generally support Sec. 302 of the *Cures 2.0 Act* that proposes grants for novel trial designs, like complex and adaptive trials, and other innovations in drug development that could further build the science in RWE, digital health technologies, and PED.**

In PMC’s previous comments on the *Cures 2.0 Discussion Draft*, we suggested that, in addition to the grant program proposed in Sec. 302, the FDA should accelerate the use of decentralized clinical trials by issuing guidance regarding digital technology issues, including the acceptance of decentralized clinical trials. **We thank you for adding Sec. 310 in the *Cures 2.0 Act*, which would require the FDA to hold a meeting to develop recommendations for adopting decentralized clinical trials.** We believe this would be a positive step forward in bringing clarity around this innovative approach.

Thanks in part to a responsive regulatory agency, personalized medicine has seen steady progress in recent years. As of 2020, more than 286 personalized treatments are available for patients.^{xi} Personalized medicines accounted for 39 percent of the new drugs FDA approved last year, topping one-third of new drug approvals for the third time in the last four years.^{xii} Cell and gene therapy is a fast-growing area of personalized medicine development. As of January 2020, FDA had over 900 active Investigational New Drug applications for gene therapies.^{xiii} The scientific review of gene therapies requires the evaluation of highly complex information and, thus, reviewers with highly specific expertise. By 2025, the FDA anticipates it will be approving 10 to 20 cell and gene therapy products per year.^{xiv} Thus, the FDA needs additional resources to bolster its workforce and keep pace with the growing workload. Long-term follow-up studies deemed necessary based on risk of delayed adverse events may also create regulatory challenges for the agency. **We appreciate that Sec. 303 of the *Cures 2.0 Act* requires a report to Congress on the current state of cell and gene therapy regulation and foreseeable challenges for the FDA in the future, including the additional resources and authorities the FDA needs to address these challenges.**

The *21st Century Cures Act* also placed an additional focus on the use of RWE to support regulatory decision-making, including the approval of new indications for approved drugs. Congress defined RWE as data regarding the usage, or the potential benefits or risks, of a drug derived from sources other than traditional clinical trials. FDA expanded on this definition and now defines RWE as clinical evidence regarding the usage and potential benefits or risks of a medical product derived from analysis of data routinely collected from electronic health records (EHRs), claims and billing sources, product and disease registries, patient-generated data, and mobile devices.^{xv}

RWE is enabling researchers to go beyond the scope of traditional clinical trials and to gain insights from information collected in routine clinical care. However, using these data to tailor care at an individual patient level is complex because providers do not always have the resources to assess every piece of information that could help a patient achieve specific health outcomes. Advanced tools such as artificial intelligence, machine learning, and other analytics technologies are playing an increasingly important role in continually assessing records and other data sets to extract pertinent information.

Health care delivery informed by RWE is an important part of personalized medicine's future. PMC appreciates your desire to build on the initial RWE provisions in the *21st Century Cures Act*. The provisions contained in Sec. 304 of the *Cures 2.0 Act* requiring HHS to outline how it will maximize and expand the use of RWE and establishing a task force to develop recommendations on patient engagement in data generation will support ongoing RWE activities at the FDA and across the federal government to foster technologies that will make data-driven health care a reality. RWE can also play a role in facilitating patient access to innovative technologies where there may be challenges to developing the initial evidence to justify coverage, as Sec. 404 seeks to address for Medicare beneficiaries.

However, we reiterate our request that the task force's recommendations under Sec. 304 (page 69, line 14 – page 70, line 2) include clear mandates such as key performance indicators demonstrating how FDA is using RWE in review decisions. We also believe it is important to add

the perspectives of stakeholders generating RWE on the task force given their familiarity with the data. Therefore, in addition to private sector representatives that include patient groups, we suggest adding “representatives from health data organizations, researchers and other non-industry stakeholders generating RWE” (page 69, lines 11-13).

We also request Sec. 304 be amended to include provisions authorizing the use of RWE for pre-market evaluation of drugs, biologics and devices. In addition, while PMC would encourage further FDA guidance development on RWE that includes an overarching framework for its uses in clinical trials, the discovery of predictive and prognostic biomarkers, and clinical decision support, we believe any further guidance development required by FDA should be reflective of its ongoing guidance development activities related to RWE. We also believe further guidance development should leverage existing resources developed outside of the FDA, such as resources developed by the Medical Device Innovation Consortium (MDIC).

To ensure that patients have access to personalized medicine, PMC advocates for flexible coverage policies and adequate payment rates for personalized medicine treatments, diagnostic tools, and technologies. PMC has been working with CMS and private payers to inform strategies that facilitate timely access to personalized medicine based on the value it provides to patients, the health care system, and society. We have been fortunate to see many transformative treatments and technologies come to market in recent years. Chimeric antigen receptor (CAR) T-cell therapies in oncology, gene therapies for pediatric rare diseases, next-generation sequencing technologies, biomarker imaging with molecular diagnostics, and radiotracers are just a few of the innovations that are unlocking a new era of personalized care.

Unfortunately, the process for seeking and securing patient access to some technologies, molecular diagnostic tools and treatments by CMS and private payers has been challenging. In some cases, inconsistencies in coverage and inadequate reimbursement have impacted patient access. Sec. 305 of the *Cures 2.0 Act* requires the establishment of a communication mechanism between FDA and CMS on breakthrough therapy drugs. Given the complexity of delivering many of these therapies to patients and the barriers created for reimbursement to hospitals and health care providers, we encourage the inclusion of representatives from CMS in any conversations to consider not only coverage for the drugs, but also diagnostics used to inform treatment as well as provider reimbursement for the true costs of care associated with the delivery of a breakthrough therapy. In our previous comments on the *Cures 2.0 Discussion Draft*, we raised concerns that the existing language in Sec. 305 is problematic due to the possibility that the authority for FDA and CMS to share information with each other as may be appropriate to inform and coordinate such decisions could change the clear and distinct remits of each agency, making approval and coverage decisions more difficult. **We thank you for modifying Sec. 305 to clarify that FDA and CMS shall ensure the processes for approval and coverage remains separate and distinct.**

One of the major pillars of personalized medicine is the development of targeted treatments based on the increasing understanding of the molecular basis of disease. Tremendous progress has been made in defining the molecular basis and mechanisms of disease through the use of large datasets, advanced

genomic technologies, molecular imaging, diagnostic tools and analytical methods. As a result, personalized medicine drug approvals doubled between 2016 and 2020, jumping from 132 to 286. In order for research advances to be realized rapidly, the regulatory approval processes in the United States have evolved to facilitate the development of novel, safe, and efficacious interventions in a timely manner. Four expedited pathways were developed for distinct reasons. Priority review aims for FDA review in 6 months (vs. 10 months for standard review). Accelerated approval permits approval based on surrogate endpoints. Fast-track and breakthrough therapy programs both intend to reduce the duration of clinical trials through more intensive FDA guidance including regular meetings and communication throughout the full drug development cycle. Between 2011 and 2017, the majority of newly approved drugs were associated with at least one expedited FDA review pathway.^{xvi} With the increasing identification of new molecular drug targets, use of these pathways may grow. A recent working group determined that enhancements to the Accelerated Approval pathway will help to ensure continued benefit from this program as medicines and drug development evolve.^{xvii} **We appreciate that Sec. 307 of the Cures 2.0 Act remedies some unforeseen impediments to sponsors, which will allow them to gain Accelerated Approval designations for investigational drugs if they meet proper criteria.**

TITLE IV: CENTERS FOR MEDICARE & MEDICAID SERVICES

PMC is interested in additional opportunities to modernize coverage and reimbursement processes at CMS that could ensure patient access to personalized medicine.

In recent years, CMS has made national coverage determinations for certain types of technologies, as opposed to making them on a product-by-product basis, such as for next-generation sequencing diagnostic tests used in advanced stages of cancer. Given the rapid pace of innovation and the challenges in securing coverage or reimbursement for some technologies, we believe the GAO report to Congress from the Comptroller General on recommendations to enhance Medicare coverage and reimbursement for innovative health technologies proposed in Sec. 401 of the *Cures 2.0 Discussion Draft* would identify opportunities to improve interagency collaboration and communications under the Medicare program, specifically between CMS and the FDA, as well as other opportunities to streamline the coverage process. **However, we continue to believe Sec. 401 could be improved by defining “innovative technologies,” which should include, but not be limited to, cell and gene therapies, individualized therapies, clinical decision support and patient management algorithms and platforms, molecular imaging, radiopharmaceuticals, and biomarker tests. Since the initial evidence base for novel technologies may be more limited, this report should apply to innovative technologies that “may” increase access to health care, improve health care quality, decrease expenditures, or otherwise improve the Medicare program or health care for beneficiaries (page 78, line 14).**

Despite the consensus that personalized medicine approaches have significant value, their implementation – and consequently patient access – across the United States is highly variable.^{xviii} Telehealth can improve patients’ access to personalized medicine by making it easier for a patient to connect with a health care provider, including providers a patient would not normally have access to at their current health care institution, to discuss appropriate treatment and prevention options, which may

involve diagnostic testing. For example, genetic tests used to assist in medication selection for patients with depression have demonstrated improved patient outcomes^{xix} and reduced costs.^{xx} Telehealth also has the potential to mitigate barriers that disproportionately impact individuals from minority, low-income, and rural communities, and may be especially helpful for individuals who have to travel long distances to a provider or may face logistical or other challenges to accessing care in-person, such as the stigma often associated with seeking mental and behavioral health care. Congress' temporary expansion of Medicare beneficiaries' access to telehealth services during the coronavirus public health emergency has played a critical role in ensuring the continuity of care for patients.

PMC continues to support the inclusion of Sec. 403 in the *Cures 2.0 Discussion Draft* that would allow the Secretary of HHS to permanently expand telehealth flexibilities and remove Medicare's geographic and originating site restrictions, which require a patient to live in a rural area and be physically in a doctor's office or clinic to use telehealth services. PMC also appreciates that this provision includes language requiring the Secretary of HHS to consult with stakeholders on services that are clinically appropriate via telehealth.

Given other bills on telehealth circulating in Congress that you may be asked to consider as the *Cures 2.0 Act* moves forward, we would like to proactively highlight our concerns with a proposal outlined in *H.R. 6202: The Telehealth Extension Act*. In order to address fraud concerns with ordering genetic tests via telehealth, this bill includes a provision requiring a provider to have met with a Medicare beneficiary within the past six months before ordering a "high-cost laboratory test" via telehealth. As we have explained in a separate comment letter on this proposal,^{xxi} we believe imposing this requirement would create additional burdens on patients and, thus, limit patient access to genetic tests underpinning personalized medicine. Instead, oversight requirements should focus on monitoring provider deployment of telehealth services. **Before modifying coverage policies that may remove or limit patient access to telehealth services currently covered under the public health emergency, such as policies for ordering testing services via telehealth, PMC believes the Secretary of HHS should consult with stakeholders, including through public notice and comment rulemaking.**

PMC has strongly supported CMS' recent efforts to establish a Medicare Coverage for Innovative Technologies (MCIT) pathway that would extend coverage for breakthrough devices immediately upon the date of FDA approval for up to four years. For devices addressing areas of unmet medical need, which may include diagnostic and screening tests underpinning personalized medicine, the newness of the device, and in some cases small patient population sizes, can create challenges to gathering the clinical evidence needed for coverage and reimbursement determinations, including age- and disability-related outcomes, subsequently increasing the time between introduction to the market and patient access. **Given CMS' recent decision to repeal the MCIT pathway, PMC strongly supports the inclusion of Sec. 404 in the *Cures 2.0 Act* that would codify a transitional coverage and payment pathway for breakthrough devices under the Medicare program, including for "specified" breakthrough devices that do not fall into a defined Medicare benefit category.** Creating this pathway would mitigate the upfront evidence burden required to meet the current coverage standard and allow for additional evidence collection while addressing patients' unmet medical needs. The transitional pathway proposed in the *Cures 2.0 Act* would create an opportunity for timely Medicare

coverage of breakthrough devices, including in vitro diagnostic (IVD) test kits as well as laboratory-developed tests (LDTs) in the event a laboratory voluntarily seeks breakthrough designation and clearance or approval from FDA. **However, Section 404 (page 88, lines 10-11 and page 88, lines 15-16) should be amended to clarify that breakthrough devices to be covered include devices for “treating indications or informing treatment of an indication” to ensure that personalized diagnostics are included.**

Digital health technologies play a key role in advancing personalized medicine by generating data from individuals in a real-world setting. This information can be used with other data sources to generate RWE informing coverage and payment decisions, future medical product development, and treatment decision-making. **We continue to support the inclusion of Sec. 405 of the Cures 2.0 Act that would require the Secretary of HHS to submit a proposal to Congress on how to provide coverage and payment for digital alternatives to treatment, including wearables and digital applications and platforms.** We believe this provision complements other regulatory proposals in *Cures 2.0* advancing digital health and would help prepare CMS for the future as patients assume a larger role in managing their own health care and are more informed by their ability to access their personal data, including their genomic information.

Since 2017, PMC has supported legislative efforts to establish a demonstration project identifying ways in which genetic and genomic testing can be better utilized to improve patient outcomes. **We thank you for your inclusion of Sec. 407 in the Cures 2.0 Act to expand access to diagnostic testing for pediatric patients with rare diseases.** Many rare disease patients, who are often children, experience lengthy delays in receiving diagnoses and treatments necessary for their diseases. Federal support for coverage of genetic testing and genomic sequencing for certain children on Medicaid will enable patient access to services that would otherwise be financially out of reach. We appreciate your collaboration with Representatives Eric Swalwell (CA-15), Scott Peters (CA-52), and Tom Emmer (MN-6) to include an updated version of this bill that was informed by patients, clinicians, industry, and other stakeholders, including PMC. **If feasible to include moving forward under Sec. 407, we suggest inserting on page 119, line 10 “potentially disease-causing, or clinically relevant, genetic variants” since genetic and genomic testing can inform not only a patient’s diagnosis but also treatment and dosing decisions.**

We also note that while Sec. 407 appropriately calls for a study and report by the National Academy of Medicine on how genetic and genomic testing may improve preventive care and precision medicine, the provision identifying the entities with whom it must consult in preparing the report does not specifically include the clinical laboratories responsible for performing much of the genetic and genomic testing that is the subject of the report. **We recommend including “clinical laboratories” among the entities specifically named in the consultation provision under Sec. 407 (page 123, lines 1-12).**

Certain personalized medicine tests, called pharmacogenomic tests, predict which medications at which doses will be most effective and safest for individuals based on their genetic makeup and known drug-gene interactions.^{xxii} This information can help guide the safe application of medicines for many health conditions, including drug selection and dosing. For example, one case study in retirees over age 65 found that leveraging pharmacists’ expertise to recommend medication changes based on patients’

genetic information and known pharmacogenomic implications resulted in a 17 percent reduction in cost-to-plan spending and a 29 percent reduction in hospitalizations.^{xxiii} Another study found that combining information from pharmacogenomic testing with provider access to related clinical decision support tools led to a decrease of about 40 percent in hospitalizations, a reduction of about 70 percent in emergency department visits, and reduced health care costs.^{xxiv} Given the important role of these and other tests in personalized medicine, PMC continues to support the inclusion of Sec. 408 in the *Cures 2.0 Act* that would provide Medicare coverage for pharmacogenetic consultations between a beneficiary’s health care provider and qualified clinical pharmacists about their genetic or genomic information and the dosage, safety and efficacy of particular drugs, biologicals or other treatments. **We thank you for expanding Sec. 408 to also include consultations with genetic counselors and pathologists.** We believe adding this Medicare benefit will improve patient care and reduce health care costs.

FDA drug labels provide important information regarding drug selection and dosing, as do published literature in clinical guidelines. At times, this information can be discordant. What is in the label and what is in the clinical guidelines need to be considered and consulted by the provider to make an informed decision. **Therefore, PMC recommends the addition of language in Sec. 408 facilitating the provision of information as part of “pharmacogenetic consultations” identifying the extent to which the consultant’s recommendations are based on a drug’s FDA-approved label or clinical guidelines.**

In addition to the current provision, we continue to strongly support adding to Sec. 408 the text of H.R. 2144, the *Access to Genetic Counselor Services Act*, in its entirety. Pharmacogenetic consultations are only a portion of genetic counselors’ role in delivering personalized medicine. Genetic counselors are specifically educated, trained and qualified to provide consultations about genetic tests and their appropriate uses and applications. They are also trained to help patients understand their genetic information and the implications of their genetic test results on their medical conditions, levels of health risk, and the health of their families. They help ensure the most appropriate genetic test is utilized, thereby assisting with identifying a genetic cause of a patient’s disease or symptoms and enabling the use of personalized medicine, such as pharmacogenetics. There is no better way to ensure that appropriate and innovative genetic testing, and thus personalized medicine, reach Medicare patients than to add genetic counselors to the Medicare program. Medicare’s lack of reimbursement for genetic counselors continues to create access and quality barriers to genetic services. In fact, under President Biden’s reinvigorated Cancer Moonshot initiative, the President’s Cancer Panel also identified adding genetic counselors to the Medicare program as a priority to expand patients’ access to genetic testing and counseling for cancer risk assessment.^{xxv} Leveraging genetic counselors’ expertise promises to improve patients’ access to personalized medicine.

Clinical laboratories play a critical role in providing diagnostic services, like genetic and genomic testing, that underpin personalized medicine. The *Cures 2.0 Act* includes a new provision under Sec. 410 that would establish a process for developing and adopting standards for electronic prescribing. Sec. 410 also references electronic prior authorization, which could affect laboratories offering personalized medicine services, but laboratories are not among the stakeholders that must be represented in the

Standards Maintenance Organization (SMO). **PMC suggests Sec. 410 be amended either to clarify that the referenced standards are to relate solely to drugs, or to add clinical laboratories to the list of SMO members on page 129, lines 6-11.**

TITLE V: RESEARCH

Decades of research on the genetic and biological underpinnings of disease has made it possible to develop new personalized medicine treatments for cancers as well as rare, common, and infectious diseases. As public-private partnerships like the Accelerating Medicines Partnership have demonstrated, scientific progress relies on contributions from multiple stakeholders across the research and development ecosystem. Foundational advances in genetic and genomic technologies also paved the way for scientists' rapid response to COVID-19. The progress we have seen, from mRNA vaccine development, diagnostic testing, and variant sequencing, to beginning to understand how human genomic variation influences infectivity, disease severity, vaccine efficacy, and treatment response, relies on years of personalized medicine research that cannot be attributed to any one partner.^{xxvi, xxvii}

PMC believes creating the proposed Advanced Research Projects Agency for Health (ARPA-H) as a distinct division within the National Institutes of Health (NIH) and with a unique culture and organization that embraces the risk of failure and fosters collaborations similar to those we have seen throughout the COVID-19 pandemic and during the Human Genome Project has the potential to significantly benefit patients and the health care system by expediting the development and application of new personalized medicine technologies. **We continue to support the interest from Congress in establishing President Biden's proposed ARPA-H to help drive transformational innovation in health research and speed the application and implementation of health breakthroughs.**

In our previous comments on the *Cures 2.0 Discussion Draft*, we highlighted concerns that funding ARPA-H could ultimately reduce appropriations to NIH for traditional basic and translational research. NIH investigator-led research generates fundamental knowledge about the molecular basis of a disease and points to pathways for developing new treatments and potential cures. Thus, diligently investing in NIH research is key to bringing us closer to a future in which every patient benefits from an individualized approach to health care. **PMC appreciates the considerations included in Sec. 501 to form priorities and a budget process for ARPA-H that are distinct from NIH's existing centers and institutes, which could help avoid any future reductions in NIH funding as a result of the formation of ARPA-H.**

Conclusion

Thank you for introducing the *Cures 2.0 Act* and for considering our comments. PMC welcomes the opportunity to serve as a resource for you as you continue the *Cures 2.0* effort to ensure it can support the ongoing development and delivery of personalized medicine products and services for all patients. If you have any questions about the content of this letter, please contact me at 202-499-0986 and cbens@personalizedmedicinecoalition.org or David Davenport, PMC's Manager of Public Policy, at 804-291-8572 and ddavenport@personalizedmedicinecoalition.org.

Sincerely yours,



Cynthia A. Bens
Senior Vice President, Public Policy

ⁱ Personalized Medicine Coalition. *Re: Cures 2.0 Discussion Draft*. July 16, 2021.

https://www.personalizedmedicinecoalition.org/Userfiles/PMC-Corporate/file/PMC_Comments_Cures_2.0_Discussion_Draft.pdf.pdf.

ⁱⁱ Congresswoman Diana DeGette. “DeGette, Upton Introduce Highly Anticipated Cures 2.0 Bill.” November 16, 2021.

<https://degette.house.gov/sites/degette.house.gov/files/CURES%202.0%20Text.pdf>.

ⁱⁱⁱ Charles River Associates. *The Benefits of Personalized Medicine to Patients, Society and the Healthcare System: Final Report*. Prepared for the European Biopharmaceutical Enterprises and the European Federation of Pharmaceutical Industries and Associations. July 6, 2018. <https://www.ebe-biopharma.eu/wp-content/uploads/2018/07/CRA-EBE-EFPIABenefits-of-PM-Final-Report-6-July-2018-STC.pdf>.

^{iv} Personalized Medicine Coalition. *The Personalized Medicine Report: Opportunity, Challenges, and the Future*. 6th edition. November 17, 2020. https://www.personalizedmedicinecoalition.org/Userfiles/PMC-Corporate/file/PMC_The_Personalized_Medicine_Report_Opportunity_Challenges_and_the_Future.pdf. Accessed January 21, 2022.

^v Personalized Medicine Coalition. *More Than a Number*. <https://www.mtan.org/articles/more-than-a-number>. Accessed January 21, 2022.

^{vi} Personalized Medicine Coalition. *Advancing Personalized Medicine Through Inclusive Biomedical Research*. April 22, 2021. <https://www.youtube.com/watch?v=SXtPVd9sJ98>.

^{vii} Kathy Giusti and Richard Hamermesh. *You Can't Have Precision Medicine if You Still Have Disparities*. Kraft Precision Medicine Accelerator. <https://www.hbs.edu/kraft-accelerator/assets/pdf/HBSKraft2021Disparitieswhitepaperv6.pdf>. Accessed July 13, 2021.

^{viii} Kathy Giusti and Richard Hamermesh. *You Can't Have Precision Medicine if You Still Have Disparities*. Kraft Precision Medicine Accelerator. <https://www.hbs.edu/kraft-accelerator/assets/pdf/HBSKraft2021Disparitieswhitepaperv6.pdf>. Accessed January 21, 2022.

^{ix} Eastern Research Group, Inc. *Assessment of the Use of Patient Experience Data in Regulatory Decision-Making*. June 18, 2021. <https://www.fda.gov/media/150405/download>.

^x University of California, San Francisco. *The Elements of Personalized Medicine*. <https://precisionmedicine.ucsf.edu/digital-health>. Accessed December 13, 2019.

^{xi} Personalized Medicine Coalition. *Personalized Medicine at FDA: The Scope and Significance of Progress in 2020*. February 11, 2021. https://www.personalizedmedicinecoalition.org/Userfiles/PMC-Corporate/file/PMC_The_Personalized_Medicine_Report_Opportunity_Challenges_and_the_Future.pdf.

^{xiii} Personalized Medicine Coalition. *Personalized Medicine at FDA: The Scope and Significance of Progress in 2020*. February 11, 2021. https://www.personalizedmedicinecoalition.org/Userfiles/PMC-Corporate/file/PM_at_FDA_The_Scope_Significance_of_Progress_in_2020.pdf.

^{xiii} U.S. Food and Drug Administration. *FDA Continues Strong Support of Innovation in Development of Gene Therapy Products*. January 28, 2020. <https://www.fda.gov/news-events/press-announcements/fda-continues-strong-support-innovation-development-gene-therapy-products>.

^{xiv} U.S. Food and Drug Administration. *FDA Continues Strong Support of Innovation in Development of Gene Therapy Products*. January 28, 2020. [https://www.fda.gov/news-events/press-announcements/fda-continues-strong-support-innovation-](https://www.fda.gov/news-events/press-announcements/fda-continues-strong-support-innovation-innovation-)

[development-gene-therapy-products.](#)

^{xv} U.S. Food and Drug Administration. *Real-World Evidence*. <https://www.fda.gov/science-research/science-and-research-special-topics/real-world-evidence>. Accessed December 13, 2019.

^{xvi} Ariel Kantor and Susanne Haaga. “The Potential Benefit of Expedited Development and Approval Programs in Precision Medicine.” *Journal of Personalized Medicine*. January 11, 2021. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7828670/>.

^{xvii} Friends of Cancer Research. *Optimizing the Use of Accelerated Approval*. November, 2020. https://friendsofcancerresearch.org/sites/default/files/2020-11/Optimizing_the_Use_of_Accelerated_Approval-2020.pdf.

^{xviii} Arushi Agarwal et al. “A Quantitative Framework for Measuring Personalized Medicine Integration into US Healthcare Delivery Organizations.” *Journal of Personalized Medicine*. Vol. 11(3):196. March 12, 2021. <https://doi.org/10.3390/jpm11030196>.

^{xix} John F. Greden et al. “Impact of Pharmacogenomics on Clinical Outcomes in Major Depressive Disorder in the GUIDED Trial: A Large, Patient- and Rater-Blinded, Randomized, Controlled Study.” *Journal of Psychiatric Research*. Vol. 111: 59-67. April, 2019. <https://doi.org/10.1016/j.jpsychires.2019.01.003>.

^{xx} Joachim Benitez, Christina L. Cool, and Dennis J. Scotti. “Use of Combinatorial Pharmacogenomic Guidance in Treating Psychiatric Disorders.” *Personalized Medicine*. Vol. 15(6). November, 2018. <https://doi.org/10.2217/pme-2018-0074>.

^{xxi} Personalized Medicine Coalition. *Re: Medicare Payment Advisory Commission (MedPAC)’s March 2021 Report to the Congress: Medicare Payment Policy; Chapter 14: Telehealth in Medicare After the Coronavirus Public Health Emergency*. June 10, 2021. https://www.personalizedmedicinecoalition.org/Userfiles/PMC-Corporate/file/PMC-Comments_MedPAC_Report_Telehealth.pdf.

^{xxii} Personalized Medicine Coalition. *The Personalized Medicine Report: Opportunity, Challenges, and the Future*. 6th edition. November 17, 2020. https://www.personalizedmedicinecoalition.org/Userfiles/PMC-Corporate/file/PMC_The_Personalized_Medicine_Report_Opportunity_Challenges_and_the_Future.pdf. Accessed July 9, 2021.

^{xxiii} Coriell Life Sciences. *Case Study: Teachers’ Retirement System of Kentucky*. <https://www.coriell.com/wp-content/uploads/CLS-Case-Study-TRS-04.pdf>. Accessed July 8, 2021.

^{xxiv} D. Brixner et al. “The Effect of Pharmacogenetic Profiling With a Clinical Decision Support Tool on Healthcare Resource Utilization and Estimated Costs in the Elderly Exposed to Polypharmacy.” *Journal of Medical Economics*. Vol. 19(3). November 11, 2015. <http://dx.doi.org/10.3111/13696998.2015.1110160>.

^{xxv} President’s Cancer Panel. *Closing Gaps in Cancer Screening: Connecting People, Communities, and Systems to Improve Equity and Access*. https://prescancerpanel.cancer.gov/report/cancerscreening/pdf/PresCancerPanel_CancerScreening_Feb2022.pdf. Accessed February 9, 2022.

^{xxvi} Joshua C. Denny and Francis S. Collins. “Precision Medicine in 2030 — Seven Ways to Transform Healthcare.” *Cell*. Vol. 184(6): 1415-1419. March 18, 2021. <https://doi.org/10.1016/j.cell.2021.01.015>.

^{xxvii} Eric D. Green et al. “Strategic Vision for Improving Human Health at the Forefront of Genomics.” *Nature*. 586: 683–692. October 28, 2020. <https://doi.org/10.1038/s41586-020-2817-4>.