Ensuring access to innovation and data-rich biomarker space to speed better quality of care for citizens
Introduction
EAPM’s Presidency Conference held during the auspices of the Germany Presidency of the Council of Ministers on 12 October was highly successful in its own right, with an agenda packed with insights from distinguished speakers on ‘Ensuring access to innovation and data-rich biomarker space to speed better quality of care for citizens’. The programme, which appears in full in annex, brought a message of the immediate need for a new way of thinking about healthcare. It refracted this urgency through discussions on adequate healthcare frameworks, better allocation of resources, the potential of advanced testing, of coordinated approaches to cancers, and of the deployment of advanced therapy medicinal products - all against the background of the ongoing battle against COVID 19.

More than 200 delegates attended, and there were contributions from European politicians, officials from the European Commission and the European Medicine Agency, and a multitude of key stakeholders from countries including Germany, which is presently hosting the EU Presidency. The conference brought 2020 to a fitting conclusion – almost.

Fitting, because throughout the year EAPM has brought expert stakeholders together to explore how to advance personalised medicine in Europe across a range of key topics that have resulted in EAPM papers on many of the issues discussed at the conference.

Almost, because the year is not over, and nor is the campaign to develop personalised medicine, and EAPM has much to do to advance its mission in the wake of the Conference: first, by continuing to contribute actively to crucial European discussions on health-related issues that are due to come to head before the year-end; and secondly, in pursuing its mission across the upcoming years of this European Commission and European Parliament terms, and with the upcoming Council presidencies - Portugal from the start of 2021, and with those that follow, including the major countries of France and Spain, but attentive too to the interests and priorities of the smaller countries that will also occupy the Council chair over the next four years.

It is apt that the throughout the topic-specific discussions on the agenda items, the broader themes that emerged most insistently were collaboration and communication, since these have been the hallmarks of EAPM’s activity since its initiation. EAPM is by definition a collaborative exercise, bringing together the broadest range of stakeholders - as this conference again demonstrated. And communication has been at the heart of EAPM’s activity, since its role is not just as a thinktank for refining ideas, but as a vehicle for transmitting those ideas from the world of healthcare to the broader world of policy, where the decisions are made that ultimately shape the way health is delivered.
Another of the broader themes that emerged throughout the multiple sessions was implementation, with an evident appetite within the healthcare community for action rather than just more words. The conference helped clarify many key concepts for progress in personalised medicine – but it also revealed the need for going beyond discussion among people of like mind and shared beliefs, and moving the messages up and out into the policy world. And that is what EAPM will be doing with renewed energy and intensity over the coming years.

**Principle Recommendations**

Although there was no formal process of agreeing recommendations at the meeting, the following are among the recurring recommendations from the discussions.

- Inequalities in access to testing and treatment across Europe must be addressed
- Adequate data infrastructure and processing capacity must be available
- Real-world evidence must be developed and acceptance criteria agreed with regulators, HTA agencies and payers
- Greater flexibility in regulatory requirements is needed to accommodate evaluation of products destined for small populations
- Multi-stakeholder collaboration must be developed to agree research priorities, standards and quality assurance of testing, and evaluation criteria for testing and treatments
- Trust must be developed among citizens about the security and possible use of their data
- Communication must be developed by healthcare stakeholders to persuade policymakers to effect constructive change

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Denis Horgan

EAPM Executive Director
Scene setting welcome

Introducing the conference and welcoming attendees and panellists, Denis Horgan, the Executive Director of the European Alliance for Personalised Medicine, and Mary Baker, Past President of the European Brain Council, raised some of the questions that underpinned the agenda, now that COVID-19 has shaken the perception of how we are equipped to deal with the global health crisis.

They queried how funding could be better allocated in society to bring innovation into the healthcare system and speed innovation, and how to generate a genuinely multi-stakeholder approach that could reach an understanding of the key challenges and then communicate this to European policymakers. They reflected on how to support the medical community and patients, and how to make better use of the abundance of patient data. And above all, as Baker pointed out, “There is a need for the cooperation of society. We need the science to get the answers but they are no use if they just stay in the laboratories. We need to show we can work together.”
Opening session: The pharmaceutical strategy of the EU: Developing a framework to ensure capacity and equity across the EU

Against the well-documented background of demonstrable gaps in the ability of healthcare systems to respond to the current COVID 19 pandemic, concerns are inevitable about how rapidly and comprehensively Europe will develop a framework to tackle not only the immediate challenges, but also the long-running issues of the take-up of innovation to make possible the sustainable provision of high quality health services to a population continually prey to chronic disease, and vulnerable to new health risks and acute disease. Expectations are high for the new pharmaceutical strategy that the European Commission has promised to deliver before the end of 2020.

Ceri Thompson, Deputy Head of Unit, eHealth, Well-being, and Ageing in the European Commission’s DG Connect, outlined how she and her colleagues were working towards incorporating the digital transformation of health care into the upcoming pharmaceutical strategy. “There is,” she said, “incredible potential for diagnostics and prevention.” She described the ongoing work on the 1 Million Genomes project and the advances that AI is making possible in cancer imaging, the potential being demonstrated of electronic health records for the sort of large-scale research that vaccine producers are currently engaged in, and the support to in-silico development and the use of high-performance to search donated data bases. This is the evolution that will have its impact increasingly on the discovery and development of medicines, she suggested, and even aspects such as affordability. But, she underlined, for all the work underway on developing technical specifications for interoperability and e-health, and on putting in place large infrastructures to permit the movement of data around the EU, “We have to put the citizen at the centre of this if you want there to be trust in the system.” And this requires adequate governance arrangements in accordance with the character of the data. Integrating data and AI into healthcare is not just about promoting the discovery of new medicines, but also contributes to the industrial processes involved and makes industry more efficient, she added.
Iskra Reic, Executive Vice President of AstraZeneca for Europe and Canada, told the meeting: “It is vital to learn from the crisis and share and come together and learn. And this needs multiple partners working together across healthcare ecosystems.” As health outcomes are suddenly elevated to the top of the political agenda by the pandemic, the pharma sector has a role to play in countering COVID 19 and in contributing to economic recovery. But to innovate our way out of this crisis, it is essential to invest in data infrastructure. And to unlock the full value of health data, the issues that have to be addressed are quality of data and registries, ensuring infrastructures are up to date and interoperable, sharing of data, and providing the right regulatory and legal frameworks. No single actor can achieve all this, she stated. It needs a coalition of the willing – and COVID 19 is showing it can be done, but only by working together. There is a need to redesign some of the current procedures in order to be able to absorb the innovation currently in development, including increasing the acceptance of real-world evidence data in decision-making, she claimed. “I really don’t see this moving forward if we don’t engage all partners across the entire ecosystem,” she said.
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In a video message to the meeting, Croatian MEP Sunčana Glavak - a self-declared believer in the power of innovation to improve people’s lives - urged the EU and its member states to seize the moment with the current COVID 19 crisis and “re-evaluate the strengths and weaknesses of the health care system to improve the use of the newest technologies and focus on developing a personalized medicine approach.”

Christine Chomienne, Vice-Chair of the EU’s Mission Board for Cancer, and Professor of Cellular Biology at the Université Paris Diderot, also saw a moment of inflection in healthcare thinking. And in her role as a key figure in the EU’s evolving Cancer Mission, she said “We need to change the frame of mind on cancer culture, for prevention, for policymakers, for reimbursement - but always with very strong evidence.” She sees the importance of creating novel flexible governance structures and cross-sectoral and cross-institutional coordination. And she stressed the need to make sure actions are in line with stakeholders’ concerns. Outlining the development of the Cancer Mission since it started back in 2018, she underlined its determination to involve citizens and stakeholders in setting research priorities, and to develop actions geared to ensuring equal access for everyone in Europe to the best of European innovation and research resources and global knowhow. But to effect change, to motivate policymakers, it is also vital to communicate.

Marcus Guardian, EUnetHTA Chief Operating Officer, recounted how health technology assessment had achieved efficiency gains from EU-level coordination, and how EUnetHTA’s acquired expertise had permitted it operate rolling reviews of new compounds indicated for possible treatment of conditions related to the pandemic. But, he said, this requires a robust mechanism with clear rules, balanced by flexibility in national implementation. Making better use of data needs suitably trained staff as well as better infrastructures, and it needs a spirit of collaboration. For Guardian too the essence of success is wide-ranging collaboration, with patient input, healthcare professional advice, involvement of member states and of the industry. For the most appropriate therapeutic innovation, “It is time now to start real discussions in terms of what society needs, and how we can together match that need,” he said, counselling against continuing to produce new compounds focused on the needs of innovators rather than of society.

Cristian Busoi, the Romanian physician who is chair of the European Parliament’s industry and research committee, spoke of the great expectations from not only the cancer mission but also from investment in research and innovation. Acknowledging that current systems are falling short and need to be reassessed, he looked forward to the input from the meeting on the best ways ahead. “There is a plenty of great science in European research
and innovation, especially in healthcare and in personalised medicine,” he said. “But we should continue to force the barriers to integrating innovation, to close the gaps in education and awareness, and to promote greater patient empowerment.” Health service investment and boosting innovation in the sector should be a top priority for policymakers in the coming year, not only to fight the current pandemic but also to prepare health systems to respond to global challenges and future threats, he said.

“I will always support innovation and personalised medicine,” he concluded, expressing confidence in its continued growth, and urging everyone to “work together.”

Top Row: Mary Baker, Former President, European Brain Council

Bottom Row: Denis Horgan, Executive Director, EAPM - Cristian Busoi, Member of the European Parliament
Session 1: Multi-stakeholder approach - rational allocation of resources to support innovation and healthcare system efficiencies - who to test, when to test and how to test

The revelation during the current pandemic that advice from governments and experts has not always been as correct, understandable and consistent has underlined the need for clearer understanding of the underlying issues in disease detection, contact tracing, data collection, prevention and treatment. It has also exposed the potential - and the persistent gaps - in testing in general, and in the exploitation of biomarkers and molecular diagnostics in aiding prevention and early diagnosis. There are obvious issues concerning who to test, when to test, and how to test, what resources are needed, who will conduct the tests, and what systems are needed for analysing and for providing feedback loops to decision makers. However, discussion of better use of data derived from testing inevitably also leads to discussion of the barriers to data sharing, which can have a paralysing effect on progress.

Alastair Kent, formerly Director of Genetic Alliance UK, chairing the session, observed that the multi-stakeholder approach to allocating resource is assuming increasing importance across Europe not just because the pandemic has intensified the need for accurate tests that enable rapid and reliable diagnosis, but also because it has highlighted the need for systems that deliver results to the right destination – patients, family members, health professionals or health authorities. That, he said, is why this session is addressing who do we test, when, and how, and how we integrate results into the delivery of healthcare, making effective use of scarce resources. It is equally important, he said, to address how to cooperate in ensuring that new knowledge serves to target therapies to those who are most likely to benefit from treatment. The issue was discussed by experts from industry, health organisations, clinical care, academic research and patient organisations.

Inaki Gutierrez Ibarluzea, Director of Organisational and Managerial Innovation of the Basque Foundation for Health Innovation and Research, addressed directly the question of who to test. First, the subject – as a citizen – should give consent to the healthcare system to conduct the test. There should already be a suspicion of a certain characteristic in the subject, or it should be someone for whom the way of management (preventative, therapeutic, rehabilitation) is to be changed. And it should only be conducted when the risks are minimum or are assumable, with a risk / benefit balance clearly in favour of benefits. How the test is performed should embrace who is to conduct it, how any data are used, preserved and shared, and communicated, and above all what actions are to be promoted in light of the result - and what the value of those actions is. And whoever
conducts the test should be of appropriate quality, organisational capacity, able to assume the costs, and not only to perform the test but to interpret the results and communicate them properly, as a prompt to change the management of the patient. “We also need to overcome the barriers that have been put in place for access,” he added.

Joern-Peter Halle, Head of Research and Global Healthcare R&D at Merck KgA, recounted the challenges faced in gaining authorisation for a lung cancer treatment targeted on a limited patient population, for which standard clinical trials were not feasible. A liquid biopsy test, based on blood from cancer patients, helped identify patients who might benefit, and an application supported only by a single-arm trial and a companion diagnostic won approval in Japan early in 2020. There, he said, the authorities recognised the need for focus on patient sub-groups and accepted an alternative to classic randomised trials, which was not accepted in Europe. International harmonisation is needed, said Halle. “Improving the regulatory environment is one key element in progress.”

Benedikt Westphalen, of Munich University Hospital’s Department of Internal Medicine III and Germany’s Comprehensive Cancer Center, agreed on the need for harmonisation. “Every university is working with their own set of testing algorithms and tools, without any harmonisation in a German state or within the country or within Europe.” He added that it was difficult to run clinical trials in Europe, because of the extensive paperwork required. “We are at a crossroads for trials for ultra-rare subgroups,” he said. “We have a very rigid system in Europe that needs additional flexibilities.” But, he went on, flexibility should be accompanied by clear agreements on outcome measurements and on evidence requirements in post-approval commitments and monitoring. Trial sponsors, pharmaceutical companies and the agencies regulating clinical trials on a European level need to come together to decide how to make it easier. “But this has to happen on a very high political level to create a common framework,” he said.

The move towards comprehensive genomic profiling and upfront testing as standard of care in non-small cell lung cancer in higher income countries means that patients with rare alterations undergo testing in first line: “The concept of precision oncology is to use modern diagnostics and comprehensive genomic profiling to identify a group of cancer patients with the promise that by individualising treatment we will have fewer side effects, be more cost effective, and create better outcomes.” But in allocating resources, it is necessary to decide which patients will most likely derive a real benefit in terms of therapy, said Westphalen.
Robert Johnstone, a board member of the European Forum for Good Clinical Practice and of the International Foundation for Integrated Care, argued for patients to be seen not as a nuisance but as an asset, and recruited for their potential as drivers of innovation and shifts in the frame of mind in healthcare, including in regulatory affairs. “We are a resource that is not tapped very often which can make the whole system much more efficient and as a result we would get better healthcare, more personalised healthcare, and the whole system would be able to save funds,” he said.

To consider personalised medicine as expensive is short term thinking, he said, because it can save the “immense amounts” of money that are wasted on inappropriate medicine and inappropriate healthcare.

Dipak Kalra, President of the European Institute for Innovation through Health Data, said it is not ethical to run biomarkers tests unless there is something that can be done with the result. “We still deliver personalised medicine as a series of fragmented experiments,” he said. “We are not sharing enough learning, and we don’t have convincing demonstrators of health system transformation.” Persuading cash strapped health systems to embrace personalised medicine unless they can be shown a business model that reduces avoidable costs and provides better outcomes at lower downstream costs of care.
Session 2: Cancer: Case study for EU coordinated action on prostate, lung, breast and ovarian cancer

Coordination of pan-European action faces the perennial challenge that member states have competence for their own healthcare, and depends on the building of trust. In healthcare, there is still only limited cooperation, but COVID 19 has offered some evidence of the merits of working together. Examples of working together - or working towards working together - on improved standard of cancer care across the Europe were provided in this session.

In introductory remarks, Ciaran Nicholl, Head of Unit for “Health in Society” in the European Commission’s Joint Research Centre, depicted the COVID 19 pandemic as “the 2020 gamechanger,” but added that it could also be an opportunity too, to end the traditional thinking in silos, to avoid duplication, and to embrace more collaboration and new ways of thinking. From his own personal experience of decades, he noted how the various departments of the Commission are coming together in ways he had not seen before. He outlined how the JRC has initiated a new knowledge centre on cancer which will start bringing data together, to make it possible to establish a more comprehensive view. It is also completing European guidelines for breast cancer screening, diagnosis and care, with citizens’ engagement built in. “I hope this can now be extrapolated throughout Europe not just with member states but throughout our contacts with all stakeholders.”

Ouzna Morsli, Executive Medical Director Oncology of MSD provided an industry perspective on the challenges facing innovators in cancer care. She recounted how earlier treatment of cancer is allowing better patient outcomes. But the progress achieved in cancer care in the past 20 years has been uneven across Europe in terms of access to its benefits, because of wide variations across Europe in the time to reimbursement, and lack of harmonisation of operating conditions: for instance, there is also only limited alignment between HTA agencies on surrogate endpoints. She hoped for a better balance between early access and evidence requirements to emerge from the upcoming Beating Cancer plan, and better alignment between HTA bodies and industry on novel endpoints through agreement on the HTA proposal currently stalled in the EU’s legislative machinery. She also urged support for alternative pricing and reimbursement mechanisms which capture evolving evidence. “The European Union can foster collaboration and create frameworks of best practice,” she said. From the industry viewpoint, what is needed is clearer understanding of what authorities and payers need to grant access for patients, “and this requires better collaboration between the different stakeholders, between patients, regulators and the industry.”
Prostate cancer

Hein Van Poppel, Adjunct Secretary General of the European Urology Association, lamented the lack of attention to prostate cancer, and urged its firm inclusion in the Beating Cancer plan. There is, he said, a need for integration of real-world clinical data into disease classification / patient stratification and care pathways. It is time for change, in view of the high mortality rate of prostate cancer in late-stage diagnosis. Treatment of early significant disease can be curative, is not expensive and preserves quality of life, he argued, while treatment of advanced disease cannot cure, impacts heavily on quality of life, and is extremely costly. His recommendations for the Beating Cancer plan were awareness raising and early diagnosis, treatment and care, survivorship and quality of life, and research and innovation. The way forward, he said, was through risk-stratified early detection.

Lung Cancer Screening

Sofia Ravara, Medical Doctor at the Universidade da Beira Interior in Portugal, highlighted the near-impossibility of curative treatment of lung cancer when detected at an advanced stage, urging a change of paradigm through screening with computed tomography scanning using volumetric AI algorithms, so as to permit earlier intervention. The EU should support screening she said, setting out in detail what EU players could do. The European Parliament should raise awareness about the early detection of lung cancer through the adoption of a resolution, and encourage the European Commission and member states to act. The Commission should developed guidelines on lung cancer screening and ensure insuring that lung cancer is included in the scope of the EU Cancer Mission and the
Beating Cancer plan to encourage research and steer action across member states. The Council should update the 2003 recommendation on cancer screening by taking into consideration the progress made and early detection and diagnosis and by promoting equal access to quality screening across the EU. And member states should implement lung cancer screening programmes that meet patient safety and quality of care requirements as formulated in European guidelines. Coordinated action is paramount, she insisted.

**Ovarian Cancer**

Ettore Capoluongo, Professor of Clinical Biochemistry and Clinical Molecular Biology at Università Federico II in Naples, focused on the 5000 new cases of ovarian cancer each year in Italy, commenting on the current debate over the clinical relevance of germline and somatic BRCA mutations and their relative detectability in blood or tumour samples. The importance of these genes in the development of ovarian cancer have been demonstrated, and the cumulative risks of developing disease before the age of 80 are estimated at 44% for BRCA1 and 17% for BRCA2. Literature data shows next generation screening to be generally highly accurate, and the main challenge remains the characterisation of the clinical significance of BRCA1/2 variants, under continuous monitoring and revision. For Capoluongo, the main issues are who pays, and how much, which tests can be covered. Funds are necessary to allow each laboratory to deliver high quality assays, above when the extension to multi-panel gene testing and HRD/scar evaluation will be integrated in clinical management.

**Breast Cancer**

Joe Duffy, Professor at the Clinical Research Centre of St Vincent’s University Hospital in Dublin said biomarkers are the key to personalised treatment in breast as well in other cancers. Questions over who to treat can be addressed by prognostic biomarkers; how to treat can be guided by predictive biomarkers; and assessing the effectiveness of treatment can be performed by monitoring biomarkers. The more money spent on biomarkers, the less is wasted on unnecessary treatments, he said. Biomarkers are now the gold standard in monitoring treatment, supplanting radiology imaging, which is expensive is not always convenient for patients. And “there is good news on the horizon with a number of targeted therapies,” he predicted.
Session 3: Biomarker testing: Piercing the fog of Alzheimer’s and related demetia

This session discussed how to improve the use of and access to biomarker testing in the detection and diagnosis of Alzheimer’s disease (AD) and other diseases featuring dementia, and how EU healthcare systems could benefit. Biomarkers are making a major contribution to research in AD, helping elucidate the condition and the search for treatments. They are also playing an increasing role in early detection and timely diagnosis, which are considered the principal hopes of effective management in the absence of an effective drug. The current arsenal of biomarkers could already, if more widely deployed, provide an effective minimum service to patients and health systems. A concerted action by policy makers and stakeholders could drive progress in access to AD biomarker testing to provide an optimum service in the medium term.

In his scene-setting remarks, Karim Berkouk, Deputy Head of Unit for Combatting Diseases in the European Commission’s DG Research and Innovation, set out the efforts being made to bring together distinct strands of EU-funded research in this field with a widely-shared strategic goal, to derive the benefits of complementarity. A key issue is that biomarkers are not fully integrated enough in clinical medicine, with their use often not extending beyond clinical trials. There needs to be some kind of translational approach, he suggested. Similarly, they have yet to become important tools for regulatory decision-making, and this is an area that could be improved, he suggested.

In the subsequent discussion, Timo Grimmer, Professor in the Department of Psychiatry and Psychotherapy of the Klinikumrechts der Isar der Technischen Universität München, and Charlotte Teunissen, professor of Neurochemistry at the Department of Clinical Chemistry at VUmc in Amsterdam, and Dr Frances-Catherine Quevenco, International Medical Associate for CNS and Alzheimer’s Disease in Roche Diagnostics International’s Global Medical and Scientific Affairs, all emphasised the long preclinical phase in neurological diseases, with hitherto imperceptible decline in asymptomatic subjects, and progression to cognitive deficits and then to impaired activities of daily living. Biomarkers have changed that landscape, as AD can be detected through biomarkers at pre-dementia stages.
Grimmer highlighted the emerging evidence on effectiveness of passive immunisation, currently under study in new AD medications focused on removal of amyloid beta. The impressive biological effects are showing signs of clinical effects in aducanumab, which is in Phase III and under approval by the FDA, and the hope is that early use of anti-amyloid therapies could prevent development of dementia. However, he pointed out that biomarker-based diagnosis is not adequately reimbursed in most European healthcare systems, which impedes adequate early diagnosis today, and access to new disease-modifying treatment in the future. “Healthcare systems must have reimbursement guidelines for biomarkers”, he said. “To identify patients at an early stage of the disease, biomarkers testing must become a routine for diagnosis, which is unfortunately not the case. From the research perspective everything is in place – we’re just waiting for payers to move forward.” And in response to questions as to the utility of diagnosis in the absence of treatment, he expressed confidence that within six months there would be treatments available that would be dependent on biomarkers.

Teunissen discussed how far core AD pathologies as detected in cerebro-spinal fluid are reflected in blood-based biomarkers, reporting that use of blood samples in prescreening in early stage AD for trial inclusion had made it possible to significantly reduce the number of lumbar punctures needed. But, she went on, panels of biomarkers are needed to capture the full complexity of dementias. She also urged haste, pointing
to the 20 years it took to bring CSF biomarkers to clinical implementation through the multiple steps. “We can’t wait 20 years before the blood biomarkers are implemented,” she said.

Quevenco argued in favour of early diagnosis with or without a disease modifying therapy since it permits initiation of health measures that can preserve the existing cognitive function and help to preserve daily activities for the patient, even allowing lifestyle interventions that could help stave off progression for a time, and permitting arrangements to be made for medical and caregiving teams. Blood-based biomarkers would allow broader screening to identify patients at risk of progression. “We do need to improve the infrastructure for diagnostics to be able to improve access to potential therapy soon and the time to act is now,” she said. She recommended earlier dialogue with regulators to understand the value of this diagnostic information, and she concluded with a call to “counter this feeling of hopelessness in order to get people to actually go out go see their GP tell them they want a diagnosis and address the bottlenecks from the earliest stages.”
Session 4: Propoelling healthcare with advanced therapy medicinal products

Recent advances in biomedicine with advanced therapy medicinal products are opening the door to new approaches – particularly for diseases such as cancer and rare diseases, where limited or no alternative treatment options exist and unmet need remains high. This session, chaired by Antoni Montserrat, a member of the board of directors of ALAN, commented on how after a slow start, the field is at last advancing rapidly, as demonstrated by the number and variety of clinical trials and the new products now becoming available. ATMPs have already demonstrated outstanding results in treatment in patients with B-cell acute lymphoblastic leukaemia, melanoma, and rare inherited disorders such as treatment of children with spinal muscular atrophy or vision loss due to retinal dystrophy. They hold one of the keys to making a reality of genuinely personalised medicine.

Falk Ehmann, Chair of the Innovation Task Force of the European Medicines Agency, gave an overview of EMA’s determination to support the development of increasingly complex medicines as part of its goal of catalysing the integration of science and technology and medicine. As EMA executive director Guido Rasi has said, “Regulators need to be ready to support the development of increasingly complex medicines that more and more deliver healthcare solutions by converging different technologies to promote and protect human and animal health.” Since 2009 15 ATMPs have completed the authorization process, with gene therapy predominating – a trend reflected in the pipeline of upcoming products, too. The innovation task force was created as a multidisciplinary platform for preparatory dialogue and orientation on innovative methods, technologies and medicines. The differences from traditional medicines raise new challenges for regulation and for payers, Ehmann noted. While they need only a single or few administrations, the treatment centre need qualification, and the treatment cannot be reversed in non-responders. Because the manufacturing process plays such a big role, they are difficult to copy, and have high early costs (but usually only one-off). And because there is no direct path to market access, delays are frequent. So the innovation task force is backed by an innovation network which extends across the member states, and in this forum wider issues can be discussed.

Oumeya Adjali, Directrice du laboratoire of the Universite de Nantes, pointed out that gene therapy is not one strategy but a wide spectrum of approaches and products that are very different in the field. Regulatory agencies are only starting to recognise and respond to the distinct characteristics. Many of the technologies differ widely, with no established standards, and for each application for each type of gene therapy product a choice must be made of the most appropriate manufacturing process, and of how to upscale the production. This inevitably generates higher costs and
may also raise additional regulatory issues that may be raised – resulting in a long development time for these products. “We will move faster if we have harmonised studies and processes – harmonised not only between studies but also between countries and between agencies with regard to regulatory requirements and guidelines. This is not a matter only for scientists or regulators, she added. It is a move that requires the involvement of all stakeholders – and that includes patients and their families, patient advocacy groups, researchers, clinics, politicians, investors, economists and society at large.

Top Row: Marie-Christine Ouillade, board member of the French Muscular Dystrophy Association, AFM - Dimitrios Athanasious, Board member of the World Duchenne Organisation - Thomas Thum, InstitutfürMolekulare und TranslationaleTherapiestrategien in Hannover - Oumeya Adjali, Directrice du laboratoire of the Universite de Nantes

Bottom Row: Antoni Montserrat, a member of the board of directors of ALAN - Brian O’Mahony, former President of the European Haemophilia Consortium - Denis Horgan, Executive Director, EAPM - Falk Ehmann, Chair of the Innovation Task Force of the European Medicines Agency

A similar call for multi-stakeholder engagement came from Thomas Thum of the InstitutfürMolekulare und TranslationaleTherapiestrategien in Hannover as he discussed the potential of gene therapy and tissue engineering approaches in cardiology. He highlighted the growth potential for reshaping the progression of disability associated with multiple diseases, but urged greater cooperation and partnerships between industry and university and other academic research institutions, and improved communication between researchers and society. And he emphasised the need to reflect on new pricing and reimbursement policies that could promote innovation while securing sustainability of national health insurance in Europe.

Patient representatives - Brian O’Mahony, former President of the European Haemophilia Consortium, and Dimitrios Athanasious, Board member of the World Duchenne Organisaton - offered their perspectives on ATMP access and prospects, highlighting areas of concern over unknown factors such as the duration of effects over the long term, irreversibility, and cost. Despite the large numbers of trials on-going, there are still no cures, and often wide variability in results. Creative thinking is needed to advance on these
issues, and multi-stakeholder engagement is important. As O’Mahony said, “Clinicians, patients and patient leaders should all sit down in one room.” And Marie-Christine Ouillade, board member of the French Muscular Dystrophy Association, AFM, argued for new policies on economic support to innovation in the field of rare diseases. She recounted the challenges faced by non-commercial organisations such as hers developing innovative treatments for ultra-rare diseases. “We have reached the limit of what we can do as a patient organisation for very rare diseases,” she said. Even where a therapy is developed, the scale of financing required to obtain a marketing authorisation is beyond the capability of non-commercial organisations, thus precluding any possibility of revenue from licensing or partnership or of attracting investors. “It’s very difficult to find a partner in Europe for a risky programme,” she said.
Closing session: Realising the potential of data & early diagnosis through biomarker testing & molecular diagnostics

The closing session reflected on how the potential of new technologies can be fully exploited only if it is underpinned by data – which may require new data governance frameworks, better registries, better curation and better access.

Marzia Zambon, External Affairs Director of EUROPA DONNA – the European Breast Cancer Coalition, emphasised the importance of working together in pursuit of shared goals of better patient care. She listed her key priorities as seeing implementation of EU breast cancer resolutions and written declarations, and securing provision of mammography screening and specialist breast units in line with EU guidelines. Other priorities included establishing national breast cancer registries, promotion of research, and ensuring treatment access for patients. At present, the introduction of personalised medicine was impeded by inequalities of access across countries to testing, trials and treatment, limited funding, widespread resistance in national health systems and medical establishments, and the absence of EU guidelines and quality assurance for breast services. “As patient advocates we expect that molecular-based testing as well as personalised treatments meet certain evidence-based publicly-set harmonised standards in a consensus-based framework,” she said.
Stefan Gijssels, Chief Executive Officer of Digestive Cancers Europe, said his priority was to create a sense of urgency about tackling cancer, mirroring the catalytic effect that COVID 19 had exerted on the European healthcare establishment. Currently, in the cancer field, he was conscious of a persistent lack of political insight and political will, a lack of sense of direction, and incoherence between regional and national responsibilities. He wanted to see patients with all cancers getting earlier diagnosis to improve their chances of survival. And beyond treatment, he wanted systematic real-world data being collected on how patients subsequently fared. There are only some registries in some member states, and they are not systematic, and are not sufficiently connected to other databases on morbidity, comorbidities or treatments. He expressed surprise that so little is invested in tracking what happens to patients after their treatments, since so much is spent on treatment. “In most member states it is extremely difficult to have survivorship data five years after diagnosis,” he said.

Benjamin Gannon, Vice President for International Access, Policy and Advocacy at Myriad Genetics, concluded the session and the conference with his insistence that personalized medicines and genomics can offer a solution, but require clear frameworks to be delivered. In his view, more legislation at European level could generate more compelling guidelines or recommendations or declarations, which at present are not always fully implemented in national systems. Policy implications include quality assurance of samples and laboratory performance, support for integration and harmonization of complex testing into clinical pathways, better balanced approaches that are sufficiently futureproof, and clearer expectations over evidence and value assessment. That way a healthy European diagnostics ecosystem can emerge, he said.
Principle Recommendations

Although there was no formal process of agreeing recommendations at the meeting, the following are among the recurring recommendations from the discussions.

• Inequalities in access to testing and treatment across Europe must be addressed
• Adequate data infrastructure and processing capacity must be available
• Real-world evidence must be developed and acceptance criteria agreed with regulators, HTA agencies and payers
• Greater flexibility in regulatory requirements is needed to accommodate evaluation of products destined for small populations
• Multi-stakeholder collaboration must be developed to agree research priorities, standards and quality assurance of testing, and evaluation criteria for testing and treatments
• Trust must be developed among citizens about the security and possible use of their data
• Communication must be developed by healthcare stakeholders to persuade policymakers to effect constructive change
About EAPM

The European Alliance for Personalised Medicine was launched in March 2012, with the aim of improving patient care by speeding development, delivery and uptake of personalised medicine and earlier diagnostics, through consensus.

EAPM began as a response to the need for a wider understanding of priorities in personalised medicine and a more integrated approach among stakeholders. It continues to fulfil that role, often via regular major events and media interaction.

Our stakeholders focus not just on the delivery of the right treatment for the right patient at the right time, but also on the right preventative measures to ensure reliable and sustainable healthcare.

The mix of EAPM members and its broader outreach, provides extensive scientific, clinical, caring and training expertise in personalised medicine and diagnostics, across patient groups, academia, health professionals and industry.

Relevant departments of the European Commission have observer status, as does the EMA, and our engagement with MEPs and Member State health ministries in key policy areas is a crucial part of our ongoing work.

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Next EAPM event

10 December, 2020:
Roundtable Meeting ‘Seeking Response Not Just In Words And Plans But In Actions’”