



Radical Collaboration: *Pharma's* NEW PLAYERS

Pharma companies are taking advantage of the benefits of playing well with others.

The once guarded and uber competitive pharmaceutical industry is now collaborating and sharing information with partners — both inside and outside of the industry — to speed the development of drugs and address unmet needs in disease states.

According to our experts, partnering and collaborating in a new way is the only means by which the industry and the healthcare sector as a whole can have a meaningful impact on the health of the nation and world. Partnering with other stakeholders — payers, government agencies, patient advocacy groups, and NGOs — is the way to provide solutions to some of the seemingly insurmountable challenges in the healthcare ecosystem today.

And the other stakeholders are more than ready to play ball. Thought leaders from Humana, Microsoft, PatientsLikeMe, Qiagen, QuantiaMD, and the Global CEO Initiative on Alzheimer's Disease discuss the importance and best practices of partnering with pharma to drive innovation and results in drug development. Thought leaders from AC Immune, Millennium, and Sanofi, who are directly in-

involved in creating these nontraditional partnerships, provide their perspective on the value of collaborating with others.

According to EY, there is a definite trend in the industry to seek out more and different partnerships from the past. Pharmaceutical companies are beginning to define incentive-based collaborative partnerships around specific therapeutic classes or patient populations where data are shared and managed within a defined ecosystem of partners.

"These collaborative partnerships are forming between a combination of the traditional healthcare players, including payers, providers, pharmacies, pharmaceutical companies, and medical device companies as well as consumer product and technology companies," says Kim Ramko, the Americas advisory life sciences sector leader, EY. "The most successful partnerships will be those that combine the traditional medical model of managing patients' health with behavioral interventions that engage the patient and can be monitored and measured along with the medical information to predict and improve outcomes."

Andrea Pfeifer, CEO of AC Immune, and one of the founding members of the Global CEO Initiative on Alzheimer's Disease (CEOi), says the emerging move away from the traditional closed business model toward a more open innovation model represents exciting times in research.

"Concerted partnerships are urgently needed, not only between companies in the pharmaceutical and biotech industries, but

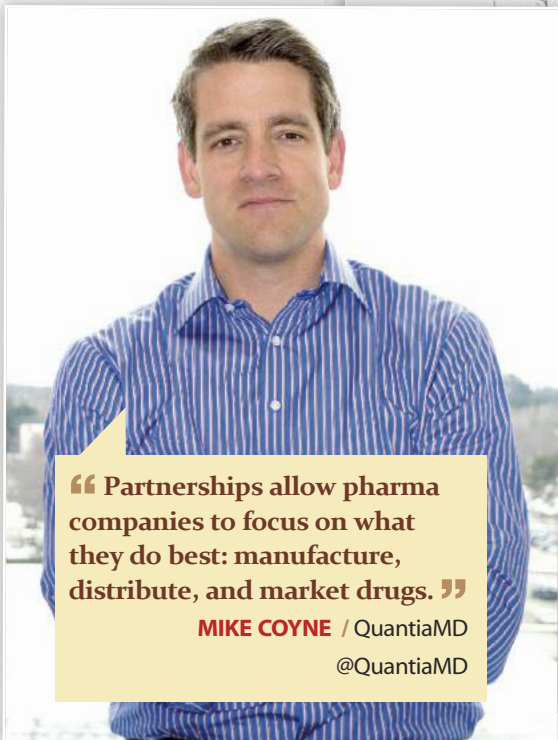
with multiple and varied organizational partners such as academia, regulatory agencies, and governments," Ms. Pfeifer says, "Distributed partnering that is patient-driven and moves away from the old blockbuster model will be very important going forward. We are seeing such partnerships, but we are at the start of a long and, hopefully, successful process."

A few examples of recent partnerships embarking on the new model include Pfizer and its Center for Therapeutic Innovation; Lilly and its Open Innovation Drug Discovery Program; the Lilly MDR-TB partnership; GSK's agreement with its Patent Pool for Neglected Diseases; and the Novartis Institute for Tropical Diseases.

Ms. Pfeifer says another very unique non-traditional partnership is the Alzheimer's Prevention Initiative (API), which was only possible through the partnership between a pharmaceutical company — Genentech — academia — the Banner Institute of Health and the University of Antioquia — and the government of the United States via the NIH.

"Every entity has its core competencies and each is acting together toward putting in place the first Alzheimer's prevention trial," she says. "The trial involves a family clan whose members have a genetic predisposition to early onset Alzheimer's disease. The trial starts this year and the goal is to learn about treatment for early onset AD, as well as for treatment and prevention in a normal population."

Another partnership, which is directly linked to API, is the formation of an umbrella



“ Partnerships allow pharma companies to focus on what they do best: manufacture, distribute, and market drugs. ”

MIKE COYNE / QuantiaMD
@QuantiaMD



“ The most successful partnerships will be those that combine the traditional medical model of managing patients’ health with behavioral interventions that engage the patient. ”

KIM RAMKO / EY

group called the Collaboration for Alzheimer’s Prevention (CAP). CAP serves as a forum for leaders of the three prevention initiatives in Alzheimer’s (API, DIAN, and A4) to harmonize their respective methods and strategies.

Ms. Pfeifer, along with CEOi convener and chairman of USAgainstAlzheimer’s George Vradenburg, adds the CEOi as another good example of partnering to improve outcomes in the fight against Alzheimer’s. Together with other pharma and nutrition companies, the FDA, and partners from financial services, the group has put forward proactive strategies to partner with governments to stop Alzheimer’s by 2025 by improving the research, care, awareness, and funding associated with Alzheimer’s disease. Nestle Health Science, Bank of America Merrill Lynch, AC Immune, Lilly, Janssen, Merck & Co., Pfizer, Sanofi, and GE Healthcare are among the founding members that have united to take on the disease. Goals of the collaboration include addressing the need for standardized clinical trial design, the establishment of globally recognized biomarkers to show if treatment is effective, proving the importance of a global network for sharing clinical data, as well as the development of a comprehensive global Alzheimer’s research agenda, which covers both basic and translational research, articulating the economic necessity of dealing with the disease, and increasing the awareness of the need for public involvement in the fight against Alzheimer’s.

Partners for Open Innovation

To keep the ball rolling on these partnerships, the industry needs to redefine its innovation model to a more open innovation ap-

proach; times have changed and it is no longer about who owns the data, but how to solve the problem faster.

“The industry has access to so much data, but it is doing very little with it,” says Maya Said, Sc.D., VP strategy, external innovation and science policy, global R&D, Sanofi. “In the past 10 years, the industry has been less productive as a whole, and the reason for this is the paradox around data. From a knowledge-generation perspective, we know much more today than we ever did, but in terms of where innovation is, we’ve actually done terribly in the domain of healthcare. This is why innovative partnerships are so important; we are trying to solve many challenges, not just for us in pharma, but for all of the stakeholders in the broader healthcare ecosystem.”

Dr. Said notes that a few decades ago, data ownership used to be a competitive advantage, but today the value is in the real information or knowledge that can be extracted from the data, not the data itself.

“It’s all about accelerating the translation of science into meaningful therapeutic solutions these days and not about who has access to the data,” Dr. Said says. “This can only be done if complementary expertise and resources across academia, industry, medical institutions, patients’ organizations, and payers are focused to address the same problem.”

Dr. Said says a good example of this is Sanofi’s partnership with The Michael J. Fox Foundation. The foundation is sponsoring a Phase 1b clinical trial of Sanofi’s drug candidate AVE 8112, which was previously in development for Alzheimer’s disease, and which has shown promise in preclinical models of cogni-

tion. This is the first time that this drug will be tested in Parkinson’s patients; researchers will be looking to find out how safe the drug is for those patients on Parkinson’s drug regimens. The foundation has also successfully completed an IND application with the FDA, which is usually a process conducted by pharma companies, and more importantly the foundation was able to provide a unique perspective from both the researcher and the patient.

“The foundation focuses on the patient experience and Sanofi provided the compound,” Dr. Said says. “Under the context of this partnership, we both bring our expertise to the table and advance the research. Neither party could do this without the help of the other.”

This type of creative partnership and business model between pharma companies and nontraditional players is helping to advance innovation by providing access to new technologies and approaches, says Kyle Kovalanka, VP, business development, Millennium: The Takeda Oncology Company.

“We have had a rich history of establishing R&D partnerships with organizations beyond the traditional biotech-pharma model, which includes academia and patient advocacy groups,” he says.

Millennium has committed to several recent partnerships, including the Multiple Myeloma Research Foundation’s CoMMpass study, which is a landmark study designed to uncover the molecular segments and variations in multiple myeloma. This study will collect and analyze tissue samples and genetic information from about 1,000 multiple myeloma patients over the next five years.

“The goal is to advance our collective understanding of the disease and ultimately help us all discover and develop more effective therapies for this patient population,” Mr. Kovalanka says.

Millennium and Takeda recently entered into a collaboration with Harvard that involves the sharing of scientists. Takeda will send visiting scientists to work in a lab with a professor and her team. Instead of benefiting from research second-hand, Takeda and Millennium scientists will learn from each other as a form of open innovation in a novel area of research.

Millennium also has partnered with M2Gen, which is a subsidiary of the H. Lee Moffitt Cancer Center & Research Institute.

“M2Gen stands out as an emerging com-



“ Nontraditional partnerships will continue to evolve to keep up with how much real-world insight and data are being shared by patients. ”

SEBASTIAAN FOPPEMA
PatientsLikeMe



“ The industry is rapidly evolving around a partnering model that is geared toward strategic alliances and outsourcing. ”

RICHARD WATTS / Qiagen



“ Concerted partnerships are urgently needed, not only between pharma and biotech companies, but with academia, regulatory agencies, and the governments. ”

ANDREA PFEIFER / AC Immune

pany that knows how to structure and execute on creative collaborations,” Mr. Kusalanka says. “A lot of its success stems from a clearly defined business model, and tools and services that provide real value to its partners.”

In particular, M2Gen has developed a large repository of human clinical samples from patients who they are able to contact through physicians for clinical trials. Through the database of the genomic profiles of these tumor samples, partners are able to screen for molecular signatures by tumor type and to identify actual patients who might respond to therapy.

“This Total Cancer Care database has helped us with lifecycle management by identifying new tumor opportunities for further exploration and to accelerate clinical trial enrollment by helping us identify patients who match the molecular profile,” Mr. Kusalanka says.

Partnering Toward Common Goals

The industry has also begun to partner with payers, technology firms, sample and assay technology providers, and data-sharing companies. These partnerships have the same goal: work together to provide a solution to improve patient outcomes as well as benefit the entire healthcare ecosystem.

Humana recently partnered with Astellas Scientific and Medical Affairs Inc., a U.S. subsidiary of Tokyo-based Astellas Pharma, for a multiyear research collaboration to explore new ideas and ways to improve the health and well-being of patients and members. The two companies report they will bring together researchers and healthcare experts from both

companies to study key issues and develop ways to reduce inefficiencies in the management of oncology, urology, and immunology conditions.

According to William Fleming, Pharm.D, president of Humana Pharmacy Solutions, traditionally the data collected by pharma, payers, and medical device/technology companies are disparate and difficult to integrate, and creating a strategic partnership helps break down the relationship and technology barriers.

“Partnerships focused on improving the care and outcomes of patients work best when we combine the clinical expertise of both organizations and leverage real-world studies that include both historical analysis, patient experience, provider education, delivery and outcome focus,” Mr. Fleming says. “These partnerships are best served with executive leadership driving the expectations and commitment to serving overall health rather than the traditional vendor/customer model of intervention strategies or research.”

In today’s regulatory, evidence-based, and comparative effectiveness environment, pharma will want to use these partnerships to conduct trials that illustrate safety and efficacy, as well as effectiveness.

“Pharma companies will need to continue to generate studies and research that support clinical and economic outcomes via comparative effectiveness type studies, as well as become more engaged in using real-world evidence to support health outcomes,” he says. “These partnerships will benefit all stakeholders. In combination and in harmony with manufacturers, we should be able to continue to improve upon total cost of care, the quality of care, and hopefully enable a better managed member/patient that will ultimately lead to

improved health outcomes when integrating real-world data with big data.”

According to our experts, there are many such partnerships that are in the early stages and some trends are emerging. Humana notes that it has observed changing internal perceptions on both sides when payers and pharma companies partner together. Both sides are gaining an understanding of the other’s structure and processes, and are faithfully trying to ensure that the research conducted addresses real-world issues in both day-to-day care and overall healthcare delivery. The partners are learning to harness real-world data assets as they attempt to address America’s senior population healthcare needs. The two parties, which historically have been on opposite sides, are finding common ground to work together for the greater good.

“At the end of the day, we both want the same thing: a patient member whose health is well managed,” Mr. Fleming says. “It will be essential for pharma and insurers to come to agreement more readily and robustly.”

The two organizations will need to come to terms on their goals, however. While medication adherence is very important to the pharma industry, to an insurer, medication adherence does not necessarily mean that a member is being treated to goal or even that he or she is receiving the proper medical examinations. Moving the conversation from adherent to well-managed will be an important next step in driving value, Mr. Fleming adds.

In the healthcare arena, Microsoft brings its cloud capabilities to many healthcare focused



“ Creative partnerships between pharma companies and non-traditional players are helping to advance innovation. ”

KYLE KUALANKA

Millennium: The Takeda Oncology Company



“ Partnerships work best when the clinical expertise of both organizations is combined and leveraged for real-world studies. ”

DR. WILLIAM FLEMING / Humana

partnerships, including Johnson & Johnson and the National Minority Quality Forum (NMQF) as part of J&J's Gateway to Healthy Communities program, which partners with school systems in Houston, Atlanta, Philadelphia, and Newark, N.J., to help keep children healthy and active, with the ultimate goal of reducing childhood obesity.

“We are witnessing the emergence of a new and exciting era of public and private partnerships at the intersection of business and health, where a significant focus is being placed on building healthier communities,” says William O’Leary, executive director, policy, health and human services, Microsoft. “In healthcare, Microsoft is focused on public and private innovation and collaboration in this changing health environment to reach our goal of making a real impact on health.”

In its collaboration with NMQF, Microsoft is developing the Clinical Trial Network, which is designed to address important challenges in clinical trials, mainly accelerating recruitment and diversity. NMQF is working closely with the pharmaceutical and provider community to achieve improved outcomes.

The collaboration will deliver a platform that provides a comprehensive database of clinical trial options to providers and focuses on issues that impact policy and health outcomes. The network will be able to quickly link the broader community of medical researchers, practicing physicians, tertiary care centers, and allied health professionals to expedite discovery and translational research.

“We believe that the nation’s success in achieving healthy communities will be impacted by the progress and dissemination of the cutting-edge public and private partnerships that are being developed today,” Mr. O’Leary says. “Public and private innovation and collaboration allows us to focus on the difficult-to-solve issues; together with other organizations, we can make a broader impact on health.”

Microsoft’s partner and customer relationships span the public and private sector, and the company is actively involved in every area of healthcare. Microsoft teams work with federal, state, and local payers and providers and their commercial counterparts, as well as life-sciences, research, academic organizations, and other community resources to help build healthier communities.

The trend for collaboration between pharma and diagnostics companies is also changing, shifting from a co-development model toward holistic partnerships that cover the co-marketing aspect. According to Richard Watts, VP, companion diagnostic partnerships, Americas, at Qiagen, strategic partnerships such as these will continue to grow in numbers with many companies developing teams geared to alliance and partnership management to oversee and co-ordinate the internal functional units and needs.

“The industry is rapidly evolving to one that strongly relies upon partnering to ensure that the best expertise and efficiencies are captured and used in a model that is geared toward strategic alliances and outsourcing,” Mr. Watts says. “More investment is being shifted toward this business model and it makes a big difference in enabling a high level of trust and transparency that results in increased productivity and an overall better partnership.”

Qiagen has been pioneering partnerships with pharmaceutical companies, such as Amgen, AstraZeneca, Bayer, Boehringer-Ingelheim, Bristol-Myers Squibb, Lilly, Merck-Serono, and Pfizer, in the development of molecular assays to enrich clinical trial populations, speed development, and ensure that patients receive the most appropriate therapy for their condition, he adds.

Managing the Data

“When we think about how far we’ve come as an industry in recognizing how crucial it is

to have patients at the center of everything, it feels like we’re leaps and bounds ahead of where we were,” says Sebastiaan Foppema, chief operating officer, PatientsLikeMe. “But there’s still a lot of opportunity ahead. I think nontraditional partnerships will continue to evolve to keep up with how much real-world insight and data are being shared by patients.”

Measurement-based medicine is moving to the forefront, where the goal is to move closer and closer to truly measuring and understanding human health. That type of measurement — at this level and scale — has never been done, Mr. Foppema says. But today, the industry is uniquely positioned to use patient-generated information to improve treatment and care for millions of people around the world who are living with life-changing conditions.

Mr. Foppema says the industry has not always been open to sharing its data, even if it was able to manage and analyze it.

PatientsLikeMe created its website based on the idea that openly sharing health information benefits patients and the industry to help to advance medicine. The platform allows people to track their health, and in the process create longitudinal records of their health outcomes.

“It’s become an open patient registry rich with real-world data and insights,” he says. “We aggregate and analyze patient-reported data and work closely with partners so that everyone can better understand the real-world nature of disease.”

PatientsLikeMe has worked with companies that are realizing that past processes for advancing medicine won’t always work in a world where new strains of diseases are regularly emerging, costs are ever-increasing, and technological developments can help them do new things faster than ever before.

To date, PatientsLikeMe has partnered with UCB on epilepsy, Novartis on transplants, Merck on psoriasis, and Boehringer Ingelheim on pulmonary fibrosis.

“We’re not just building communities but collaborating with these companies on research that could unearth more about those conditions and diseases,” Mr. Foppema says. “We’ve also worked with many more companies to support clinical trial awareness campaigns or conduct joint research projects to uncover more about people’s disease experiences, treatment toleration, adherence, etc.”

Partnering with a data management and analysis company may be more crucial these days, with the high volume of data available.

“Having data is not a value; using it toward better outcomes is,” says Mike Coyne, CEO, QuantiaMD. “The tremendous data flow may require pharma companies to partner with professional data management or analytics companies. The pharma industry has gotten quite good at collecting data; but managing and analyzing that data — not so much.”



“ The industry is investing in multiple public-private partnerships, but in my view, companies are not fully taking advantage of what those initiatives have to offer. ”

GEORGE VRADENBURG /
USAgainst Alzheimer's

He outlines two major reasons: pharma companies often build their own internal data management/analytics solutions rather than outsourcing to professional data management/analytics companies, and pharma marketers get so excited about the volume of information that can be tracked that they lose sight of the end goal, which is gaining actionable insights that result in improved outcomes and increased revenue.

“Collecting too much data is arguably as detrimental as not collecting any data at all because it becomes unmanageable and marketers are left without any learnings to apply to the next campaign,” Mr. Coyne adds.

Mr. Coyne says partnerships that allow a pharma company to remain focused on what it does best — manufacture, distribute, and market drugs — will be the most successful.

Data sharing can be very powerful, creating opportunities for pharma companies to take advantage of understanding why candidate treatments fail, and to take advantage of the speed by which they get feedback from electronic health records and patients in terms of the impact of their drugs in the marketplace.

“Opportunities exist as we begin to pool more data with standard data protocols by taking advantage of Moore’s Law, which is that digital capacity doubles every 18 months, and Metcalfe’s Law, which says the power of the network is geometrically increased by additional players,” Mr. Vradenburg says. “The industry basically gets to make the choice here on the speed with which learning and discoveries happen in the future.”

According to Mr. Vradenburg, the industry will decide whether it sees private-public initiatives as valuable in terms of bringing about sys-



“ We believe the solution to building healthier communities is collaboration among stakeholders that hold a common interest. ”

WILLIAM O’LEARY / Microsoft

tems change or addressing large industrywide issues that can’t be addressed by any one company alone. Senior-level leaders in the industry should be making an assessment of where action is occurring or likely to occur that will benefit the industry and the patients through reductions in time, cost, or risk in getting product to market and investing in those partnerships in a way that can be measured and assessed periodically against goals to improve productivity and speed to market, for example.

“There are issues in which the industry can appropriately speak as a unit, but other instances where each company must make its own decisions,” Mr. Vradenburg says. “Currently, however, it appears that companies are investing in partnerships without taking full advantage of the potential benefits of partnerships that improve R&D productivity or time and cost to market.”

When conducting research for the CEOi, Mr. Vradenburg discovered that the industry was supporting a multitude of NGOs working in Alzheimer’s, but there was no structure to form a working partnership.

“I was stunned by the number of NGOs that industry supported in this space, but also taken aback by the absence of a comprehensive strategy or action orientation to all of that support,” he says. “The NGOs are powerful intermediaries in dealing with the NIH, the FDA, CMS and in contributing to industrywide action plans to benefit patients, but there seemed to be no overarching strategy to the way those investments were being made or any particular set of goals associated with those investments. I was struck not by absence of industry involvement and cooperation but with the lack of a comprehensive strategy in making those investments. The industry was not taking as much advantage of these initiatives as it might.”

The CEOi, on the other hand, intends to be action-oriented, focused, and represents the first type of partnership that actively aligns government, industry, and trusted NGO intermediaries through a common action plan, with implementation steps, to affect a business model change for the industry and for the benefit of patients, he adds.

The industry needs to define a precompetitive space in which companies can identify what they need to do to remain competitive, while at the same time finding a place to share and pool data to learn faster and fail faster and



“ Innovative partnerships are so important because they solve problems for all healthcare stakeholders, not just for the industry. ”

DR. MAYA SAID / Sanofi

not make the same mistake twice. Companies will have to begin to determine what they need to do on their own and where is it most appropriate under antitrust laws, as well as business interest, to share their failures.

“Finding a space to comfortably engage in collaborative public-private partnerships is going to be critically important in speeding up industry’s delivery of therapies to patients through improvements in industry productivity and performance, which as we know is under stress,” Mr. Vradenburg says. “For example, precompetitive data sharing can speed up company learning by dropping therapies built on mechanisms of action previously determined to be ineffective and enable companies to avoid the waste of repeating another company’s failure because that failure was not transparent.” **PV**

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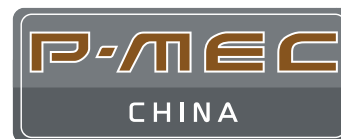
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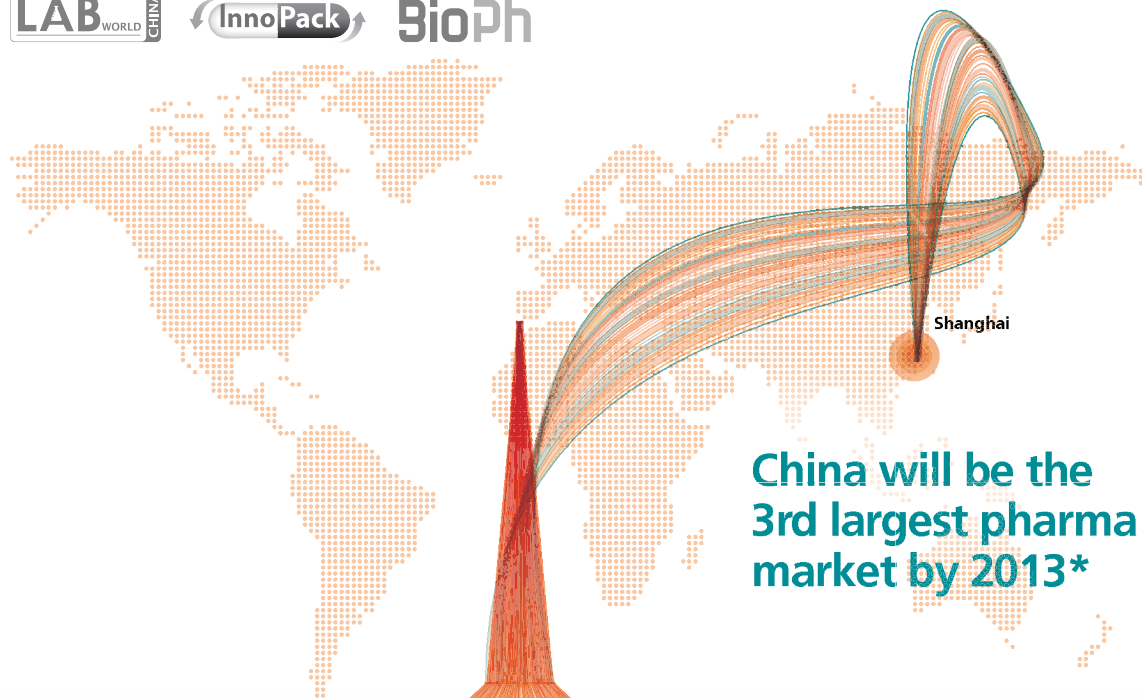
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Radical Partnerships with New Players

Examples of the industry's emerging trend to collaborate with nontraditional partners to improve health outcomes.

Global CEO initiative on Alzheimer's Disease

Players: AC Immune, Bank of America Merrill Lynch, Banner Health, Eli Lilly and Company, GE Healthcare, Janssen Research & Development, Merck, Pfizer, Sanofi, and Nestlé Health Science

The Global CEO Initiative on Alzheimer's Disease (CEOi) is an organization of private-sector leaders who have joined together to provide business leadership in the fight against Alzheimer's disease.

The CEO Initiative seeks to partner with other public leaders to transform the disease from a social, health, and economic crisis into an opportunity for healthy aging and innovation in research and care. The CEO Initiative believes that during this era of aging populations it will take visionary, coordinated, goal-oriented leadership of public and private leaders working together to solve the greatest challenges in healthcare.

The CEOi action plan is comprised of specific, milestone-driven actions and will set out strategies on how to reduce the time, cost, and risk that companies are faced with when developing Alzheimer's therapies. The need for standardized clinical trial design, the establishment of globally recognized biomarkers to show if treatment is effective, and the importance of a global network for sharing clinical data will be addressed. The organization will also strive to develop a comprehensive global Alzheimer's research agenda that covers both basic and translational research, articulating the economic necessity of dealing with the disease, and increasing awareness of the need for public involvement in the fight against Alzheimer's.

▼ For more information, visit ceozhaimersinitiative.org

Research Alliance for Oncology, Urology, Immunology Conditions

Players: Humana and Astellas
Humana and Astellas Scientific and Med-

ical Affairs Inc., a U.S. subsidiary of Tokyo-based Astellas Pharma Inc., have launched a multiyear research collaboration to explore new ideas and ways to improve the health and well-being of patients and members. The two companies will bring together researchers and healthcare experts from both companies to study key issues and develop ways to reduce inefficiencies in the management of oncology, urology, and immunology conditions.

With about 77% of all cancers being diagnosed in people 55 years of age and older, and one in two males and one in three females at risk for developing cancer in their lifetime, this partnership hopes to develop an important body of knowledge that will meaningfully advance the work of the respective companies.

▼ For more information, visit humananews.com/2013/02/humana-astellas-to-collaborate-on-research-to-improve-health-care-delivery-for-seniors

Gateway to a Healthy Community — Healthier Kids

Players: Johnson & Johnson, Microsoft, National Minority Quality Forum

The Gateway to a Healthy Community - Healthier Kids (GHC-HK) program is an innovative effort to help combat childhood obesity. GHC-HK is a core curriculum-based program that emphasizes increasing physical activity in schools in Atlanta, Houston, Philadelphia, and Newark, N.J. A key component is a proven program called Activity Works, which delivers 12-minute video/audio exercise bursts in classrooms to help maximize academic performance and meet state mandates for physical education. Through this program, in just 85 days during the 2011-2012 school year, almost 28,000 elementary school students in grades K to 3 in more than 1,100 classrooms in four cities burned more than 61 million calories. Two key partners are Microsoft and nonprofit National Minority Quality Forum, which developed, with Johnson & Johnson's support, a resource tool to identify pockets throughout the nation where diabetes

and obesity are most prevalent.

▼ For more information, visit activityworks.com

GSK Open Innovation for Neglected Diseases

Players: GlaxoSmithKline, World Intellectual Property Organization, and BIO Ventures for Global Health

GSK is the founding member of WIPO Re:Search, a new open innovation platform that aims to help accelerate the development of new and better treatments against neglected tropical diseases, such as dengue, rabies, and Chagas, as well as malaria and tuberculosis. WIPO Re:Search is a collaboration of private and public sector organizations sponsored by the World Intellectual Property Organization (WIPO) in collaboration with BIO Ventures for Global Health (BVGH). This collaboration builds on the Pool for Open Innovation against Neglected Tropical Diseases, which was established in February 2009 with patents from GSK and Alnylam Pharmaceuticals. This intellectual property (IP) pool was the first effort to ensure IP did not act as a barrier to research for neglected tropical diseases.

▼ For more information, visit wipo.int/research/en

MMRF Initiates Open Innovation Model

Players: MMRF and Millennium: The Takeda Oncology Company

The MMRF is working closely with partners in the pharmaceutical and biotech industry to advance the next generation of treatments. Millennium: The Takeda Oncology Company was the first pharmaceutical company to join the MMRF in advancing its Personalized Medicine Initiative. The eight-year, multifaceted program is designed to identify the molecular origins of multiple myeloma and enable physicians to match specific treatment approaches to the patients most likely to benefit. The Personalized Medicine Initiative

is centered around the CoMMpass (Relating Clinical Outcomes in MM to Personal Assessment of Genetic Profile) study, a recently launched, landmark 1,000-patient longitudinal study that will track multiple myeloma patients from initial diagnosis through their course of treatment. In a continued effort to bring the most promising treatments to patients faster, the MMRC upholds its mission to champion collaboration with and integration across academia and industry and to focus on speed and innovation. In August 2007, the MMRC launched the MMRC Multiple Myeloma Genomics Portal, the world's only myeloma-specific repository of genomic data, which provides the scientific community with open access to high-resolution genomic data from the MMRC Multiple Myeloma Genomics Initiative before publication and in near real time.

▼ For more information, visit themmrf.org

NHI Launches Clinical Trial Network

Players: Microsoft and NMFQ

National Health Index (NHI), part of the NMFQ, and Microsoft have launched the Na-

tional Clinical Trial Network (NCTN) designed to address important challenges in clinical trials to accelerate recruitment and diversity. The relationship allows NCTN to deliver a platform that provides a comprehensive database of clinical trial options to providers. NCTN will also be a data warehouse — patient registries, bio banks, and community-level health statistics — to transform isolated data repositories into an integrated, searchable, national archive, permitting the rapid identification of representative samples of risk populations who might benefit from a proposed therapy. NCTN will be introduced in the fourth quarter of 2013.

▼ For more information, visit nctrialnetwork.com

Pfizer's Centers for Therapeutic Innovation

The Centers for Therapeutic Innovation (CTI) is dedicated to the establishment of global partnerships between academic medical centers (AMCs) and Pfizer to transform research and development through a focus on translational medicine.

During the first 10 years of this century,

progress in biology and other fields relevant to pharmaceutical innovation has been revolutionary. Innovative science has the potential to radically change the way the industry treats disease, but it typically takes a long time and requires significant financial investment for novel findings to be translated into testable clinical hypotheses. The pervasiveness of the gap between early science and translation into clinical applications presents an opportunity for industry and academia to collaborate in an unprecedented manner through CTI. The CTI's focus is on bi-therapeutic modalities — antibodies, peptides, and proteins — across all therapeutic areas.

CTI is a pioneering open-innovation partnering model that Pfizer designed to accelerate drug discovery and development. CTI laboratory staff include Pfizer employees working side-by-side with leading basic and translational science investigators and post-docs from the AMCs. This model offers leading investigators the resources to pursue scientific and clinical breakthroughs by providing access to select Pfizer compound libraries, proprietary screening methods, and antibody development technologies that are directly relevant to the investigators' work.

▼ For more information, visit pfizer.com 

avertAF: An Open Industry Initiative

avertAF is an open industry initiative to explore new targets for preventive drug treatment of atrial fibrillation. Research shows that structural and electrical remodeling share a disease pathway and that pharmacological disruption is possible. Important new medical paradigms are rare. Many promising discoveries are never explored. Researchers often make excellent scientific papers and give oral presentations but never affect medical practice. They rarely cross the deep divide between academic research and commercial product development. avertAF represents a new model of crossing the divide. avertAF forms a bridge between the groundbreaking scientific work done at the laboratory of Dr. José Jalife at the University of Michigan and the biopharmaceutical industry. It uses the discoveries at the University of Michigan to lay the foundation for product development to prevent the progression of atrial fibrillation from its initial manifestations to the serious persistent forms. avertAF is a limited liability company through which biopharmaceutical partner companies together with academic leadership guide research being



conducted at the University of Michigan and other institutions.

avertAF reaches out to biopharmaceutical companies to jointly explore this important new target. Companies all enter on an equal basis and collectively fund the research. They call these partner companies. A steering committee with representatives of the partner companies fund and guide the research in collaboration with the scientific advisory board. Companies have access to all the data and the information is equally shared. This model has previously been used successfully in other areas. One of these was the HRP initiative, which was collectively funded with more than \$25 million by five partner companies. In another example, seven companies funded liver toxicity experiments with \$2 million in collaboration with the FDA.

The model differs from a consortium. In this model the work is contracted with universities for execution, while the research is collectively designed and interpreted by the partner companies and the scientific advisory board. In a consortium

structure companies conduct pieces of the research and these pieces come together.

In this model companies do not share their own research or plans. They share the data and insights from the collective research.

On May 30, PharmaVOICE will host a webinar to discuss avertAF. Dr. Bertram Pitt will introduce the session and discuss the need for an alternative model to support medical innovation. Professor John Camm will provide an overview of the current state of affairs and the need to go beyond the current focus on prevention of complications of atrial fibrillation. Understanding of disease mechanisms and pathways would open new avenues for prevention. Dr. José Jalife will discuss the recent scientific findings and the avertAF research plan. Dr. Pieter Muntendam will explain the avertAF model and benefits to participating companies.

▼ For more information, visit 0372d0e.net-solhost.com/AAF/

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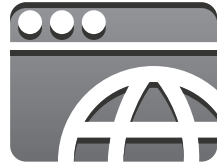
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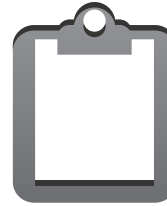
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