



**International
Pediatric
Association**

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International Pediatric Association
Newsletter

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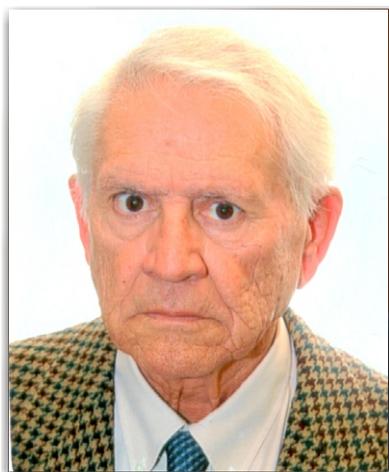
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Words from the Editor



Dear Reader,

It is our pleasure to present this issue of the IPA Newsletter. In this issue we have included some fascinating new ideas as well as some practical information for improving children's health across the globe which can be applied in low- and middle- income as well as in high-income countries (LMIC/ HICs). Amongst them, we have messages from the IPA Foundation President and Treasurer. We have placed the spotlight on the **"President's Message"** as here you will find the IPA actions carried out in LMICs along with upcoming activities which will take place in the near future, and recognition to our social networks and a touching tribute.

Do not miss the **"IPA Activity Recap"** section, where you will find a detailed report of the main actions and activities the IPA has recently undertaken. This is an important and lengthy segment, but given the length of the list, we are only presenting those principles here that address required information.

The next section of **"What's New"** will focus on novel and renowned innovations and discoveries in health. In this issue we focus on understanding the CRISPR tool and its easy and cost effective applications to the diagnosis and treatment of diseases with a genetic component.

Finally, we close with exciting and new information about the upcoming 29th **IPA Congress** (Panama March 17-21, 2019). This conference is thoughtfully planned and in coming issues you will see the program take shape. We are eagerly looking forward to the Congress, not only for its beautiful location, but also because of the opportunity it gives us of updating our knowledge along with its gathering and networking capacity, bringing us together to discuss the common issues impacting our field. The fact that residual damage of certain resolved pediatric diseases may increase the risk of chronic diseases in adulthood is a new chapter that should be learnt at any possible occasion, and we look forward to highlighting these key issues at the Congress.

We want to reiterate that the IPA Newsletter, although requiring the support of this organization, belongs to all members, non-members, National Societies and organizations alike. So I must emphasize that our doors are wide open (www.ipa-world.org) and we welcome all suggestions or comments.

Sincere Regards,

Manuel Moya
IPA Newsletter Chief Editor



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Message from the President



Esteemed Colleagues,

Welcome to our first issue for 2018. It is a pleasure to kick off the year with stories from our tenacious efforts around the globe. I recently returned from Abuja, Nigeria where I had the privilege of attending the 14th Triennial Congress of Union of National African Paediatric Societies and Associations (UNAPSA), and the 49th Paediatric Association of Nigeria (PAN) Annual General Meeting and Scientific Conference. Our teams collaborated to host a pre-conference workshop on public health nutrition, and on innovations in vaccinology strategies. These workshops were very well attended and broadened the capacity and awareness of public health nutrition obstacles and barriers to universal vaccine coverage. I had the occasion to highlight issues of focusing on vaccine equity and innovations and deliver a keynote address on the opportunities afforded to us as pediatricians by the Millennium to Sustainable Development Goals transition.

Congratulations to the new 2018-2021 President Professor Madeleine Folquet of the Ivory Coast and new President-Elect Juliette Kabiula of Botswana, the IPA looks forward to working with you. I want to express my gratitude to the team for their support thank you to our UNAPSA colleagues, with a special note of thanks to

outgoing President Dorothy Esangbedo for her team's fantastic work and a successful Congress.

Thank you all for your continued engagement in informing the IPA of regional activities through social media and our communications groups. It is wonderful to see our members so engaged in conferences, congresses, symposia and sharing new publications. Congratulations to Dr. Jose Brea, who on January 30 represented the Latin American Association of Pediatrics (ALAPE) with Voces Ciudadanas at the Commission of the Rights of the Child of the United Nations. This was the first time a civil society entity such as Voces Ciudadanas and ALAPE participated in such an important platform, and we commend the work of these societies in working to bring greater detection, prevention and management of immuno-preventable diseases.

The IPA has a busy year ahead of itself with planning for the upcoming 2019 Congress and implementing our strategic initiatives. Our Scientific Committee has been actively working to polish our draft program, and our strategic advisors have been working on a survey to assess where IPA can best place their efforts. If you haven't filled in the survey yet I urge you to do so. Our best efforts are made when we collectively work together, so please share your feedback.

Lastly, it is with deep sadness and fond memories I write this message to honour our dear friend and Dr. Robert J Haggerty. Dr. Haggerty was a passionate physician and made a deep impact in his efforts for advocacy and advancements in ambulatory care. As former Executive Director of the International Pediatric Association from 1993-98 his accomplishments were numerous having held additional leadership roles with the Ambulatory Pediatric Association; the American Academy of Pediatrics among others. He will be missed, and may his legacy continue in the efforts of the physicians of today.

To all, may 2018 be a successful year and I look forward to sharing our progress as the year continues.

Zulfiqar Bhutta

President

International Pediatric Association



Message from the President of IPAF



At the International Pediatrics Association and its funding arm (IPA Foundation) we seek to take on the biggest and most pressing pediatric issues of our time. In 2017, based on a survey of IPA members and other child health experts, we identified the top priority of the IPA and IPAF should be support for children caught in disaster situations.

The need of these children for our help is clear. According to UNICEF in 2016:

- Nearly a quarter of the world's children live in conflict or disaster stricken countries, and
- Up to 50 million children have been forced from their homes due to war or persecution.

The harsh truth is that the number of child refugees more than doubled between 2005 and 2015 and the crisis keeps getting bigger. Children and families are being displaced at the highest rate since World War II. The largest number are from the war in Syria, which is not just profoundly reshaping Middle Eastern relationships but

creating millions of homeless, stateless children. It is in these instances, especially, that pediatricians have a vital responsibility. We understand that adverse childhood experiences, including forced displacement, can have serious short and long-term physical and mental health consequences. Many of you have stepped up to the challenge through your actions and other support. The future of this generation depends on what we do for these children today.

An emergency, such as a natural disaster or outbreak of violence, can turn lives upside down in an instant – killing loved ones and caretakers, devastating communities and driving millions of people from their homes. Most of those affected are children and up to 60 percent of those living in disaster settings are under 15 years of age – with morbidity and mortality rates highest for children under five.

The IPA and the IPAF have made it our mission to help these children through a three-pronged approach:

- **Educating** disaster relief workers and health providers on the special needs of children and how best to treat them;
- **Advocating** to government and non-government organizations to provide children the resources and services they need to be healthy in the short and long term; and
- **Convening** policy makers, corporate leaders, NGOs and other agencies to better coordinate the work we all do so that we can provide the most effective response.

The IPA supported over 24 pediatric disaster relief courses over the years, most of which were funded in part by the IPAF. The most recent course was in Nigeria in February 2018 and we look forward to funding more in the future. The IPAF has also made enabling funds available to national societies in the aftermath of local disasters. In the past year funds were distributed to the following societies for immediate assistance with such disasters:



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- **Puerto Rico:** \$5,000 offered (response pending)
- **Turkey:** \$30,000 for Syrian refugee children from Johnson and Johnson
- **Colombia:** \$5,000 for playground following floods.

In 2015, the IPAF worked with the AAP to make three (\$15,000) grants to countries surrounding Syria. The monies were used in different ways, but enabled the National Pediatric Societies to work with their governments and others to support the refugee children.

The Turkish National Pediatric Society (TNPS), with support from the IPAF, has conducted several projects and activities related to the refugee children who came to Turkey after the Syrian war started in 2011. Around 1,259,000 children under 18 years old are living in the country under “temporary protection status.” Approximately 10% of these children are living in 26 temporary protection centers (containers or tents) located in the 10 cities near the border. The remaining are integrated into almost all the cities in Turkey.

TNPS activities can be classified into four categories:

- National educational activities for physicians
- Activities directed to refugees
- International activities
- Social responsibility campaign

Furthermore, the TNPS has published a paper “The Rise of a Hostile Adolescent Population; The Syrian Refugee Problem,” which was published in *Adolescent Psychiatry* 2017 and partially funded by the IPAF.

A workshop was held at the 61st National TNPS Congress in Antalya, Turkey on the topic of refugee children. Representatives of the government of Turkey, Save the Children, Johnson and Johnson and

the IPA. IPA and IPAF were represented by Drs. Alden and Keenan.

Turkey has established high standards for refugee children. The largest number of Syrian refugees is in Turkey. Some of the essential needs such as health, accommodation, and nutrition of the refugees who have lost their houses and families because of the war, are met. However, the need for psychological support is just as important as those basic needs. If post war stress disorders are not addressed early, they may cause huge problems in the long term. Children in these situations should be warmly welcomed and not excluded from society in order to heal optimally.

The social responsibility campaign entitled “Everything Starts with Love”, started by Kerem Hasanoglu, the Turkish National Pediatric Society General Coordinator, was designed to achieve this objective. It is supported by many notable and prestigious people in Turkey, and is highly important in terms of raising awareness. The TNPS, as a member of the IPA, has utilized funds from the IPAF to establish a thorough and comprehensive program in conjunction with their government to provide optimal care for the refugee children. Members of the IPAF have been invited to visit the refugee camps to gain onsite knowledge of the activities related to children. The lessons learned will be shared with other Pediatric Societies and their governments.

Errol R. Alden

President

International Pediatric Association Foundation

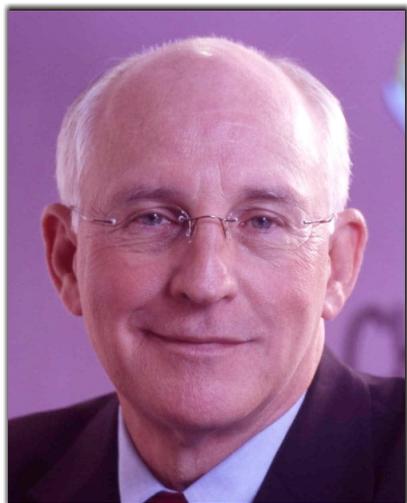
President-Elect

International Pediatric Association



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Message from the Treasurer



I became the Treasurer of the IPA at the 2016 Congress held in Vancouver. Since that time, I have worked with our administrative office in St. Louis, Missouri, USA and the IPA Executive Committee on matters related to the financial management of our organization. The administrative office works closely with the coordinator's office based in Gandhidham, India which has been instrumental in managing our dues collections.

The IPA has two major sources of revenues, the yearly dues paid by each of the member societies and the income achieved from the international congress programs. Additionally, various IPA initiatives have been funded by the IPA Foundation which is legally separate from the IPA and dedicated to managing the philanthropic support for mission related activities.

Yearly expenses include support for our administrative functions, travel to various meetings, ongoing programmatic efforts, and preparing for next year's Congress in Panama.

The finances are audited each year and required legal forms are submitted both in Switzerland and the United States where we currently have our bank accounts. The IPA has sufficient reserves to cover unexpected expenses during the years when we do not have an international congress. Our financial status currently is quite stable.

It is a great honor to serve as the Treasurer of the IPA and I will continue to participate in all activities that relate to the support and further development of its financial management.

Jay E. Berkelhamer

Treasurer

International Pediatric Association



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IPA Activity Recap

IPA Activities

Global Congresses

2018 kicked off with several regional congresses and conferences for member societies. Here is a brief recap:

The 14th Triennial Congress of Union of National African Paediatric Societies and Associations (UNAPSA), and the 49th Paediatric Association of Nigeria (PAN) Annual General Meeting and Scientific Conference, took place in Abuja, Nigeria January 24-26. We extend a warm welcome to the new 2018-2021 President Professor Madeleine Folquet of the Ivory Coast and new President-Elect Juliette Kapinga Kiabilua of Botswana.



Madeleine Folquet-
President of UNAPSA



Juliette Kapinga Kiabilua
President Elect of UNAPSA



Union of National African Paediatric Societies and Associations (UNAPSA), and the 49th Paediatric Association of Nigeria (PAN) Annual General Meeting and Scientific Conference, in Abuja, Nigeria



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At the Forum on Influenza (ForosobreInflueza) in Quito, Ecuador hosted by the Ecuadorian Society of Pediatrics, experts gathered to discuss the issues of this common illness, implications and incidence, and prevention measures.



Forum on Influenza in Ecuador hosted by the Sociedad Ecuatoriana de Pediatría

During the breakfast conference of the Dominican Society of Pediatrics, on January 25, 2018, Dr. Janet Toribio, pediatric cardiologist spoke on the early diagnosis of congenital heart disease, highlighting the advances in this regard and the importance of early diagnosis. This conference was transmitted via streaming through the website of the Dominican Pediatric Society with the call of ALAPE (Latin American Association of Pediatrics), achieving more than 2,500 complete connections. In addition to several past presidents of the Society, pediatricians and residents of pediatrics, along with Dr. Edgar Vargas, president of the Dominican Pediatric Society and Dr. José Brea, President of ALAPE, participated in the event held at the Hotel Jaragua, of Santo Domingo, Dominican Republic.



The breakfast conference of the Dominican Society of Pediatrics



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Dr. Santosh Soans attended the 1st Emergency Pediatrics and Injuries Congress (EPICON) at the Hotel Radisson Blu Hyderabad, India. Dr Prashant Mahajan Chair of Section on Pediatric Emergency Medicine of the American Academy of Pediatrics and Benita Shah Pediatrics Emergency Specialist New York were among the guests of honour.



1st Emergency Pediatrics and Injuries Congress (EPICON)

Advocacy

Sharing our expertise and our knowledge with the public and bringing the evidence to hands of policy makers and implementers is crucial in achieving the sustainable development targets and, reaching every child, everywhere. Dr. Zulfiqar Bhutta, IPA President, Dr. Naveen Thacker IPA Coordinator of Development and Asia Pacific Pediatric Association (APPA) President, Dr. José Brea del Castillo Latin American Pediatric Association (ALAPE) President and Dr. Santosh Soans, National President India Academy of Pediatrics, have been actively raising awareness on issues of child health through their recent publications.

Dr. Bhutta's team's comparative analysis on maternal, newborn, child and adolescent health in the Islamic world was recent published in The Lancet. The Millennium Development Goal (MDG) period saw dramatic gains in health goals MDG 4 and MDG 5 for improving child and maternal health. However, many Muslim countries in the South Asian, Middle Eastern, and African regions lagged behind. In this study, the team aimed to evaluate the status of, progress in, and key determinants of reproductive, maternal, newborn, child, and adolescent health in Muslim majority countries (MMCs). The specific objectives were to understand the current status and progress in reproductive, maternal, newborn, child, and



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IPA Activity Recap

adolescent health in MMCs, and the determinants of child survival among the least developed countries among the MMCs; to explore differences in outcomes and the key contextual determinants of health between MMCs and non-MMCs; and to understand the health service coverage and contextual determinants that differ between best and poor or moderate performing MMCs. Please visit the link for the article: <https://goo.gl/pojFc5>

Dr. Thacker's opinion piece on key agenda items for the WHO Annual Meeting and their importance was recently covered in Devex. With WHO's new leader, Dr. Tedros, committed to steering the organization in a new direction, the meeting provides a bellwether for how dynamic the organization will be in tackling the global health challenges in the next five years. Dr. Thacker provided some key insights into priority areas for the WHO Agenda. This is another example of how pediatricians can bring priorities to the forefront. Please visit the link for the article:

https://www.devex.com/news/opinion-5-agenda-items-to-watch-at-who-s-annual-board-meeting-91919/amp?__twitter_impression=true

Dr. Thacker piece on To Build Vaccine Confidence in India also was published in Amarujala, one of the three major English print newspapers in India. Evidence demonstrating the benefits of immunization is overwhelming. A cost-effective intervention, vaccines have saved countless lives and improved health and well-being around the globe. In 2014, Government of India launched 'Mission Indradhanush (MI)', to achieve full immunization coverage. MI was introduced in 201 districts with low immunization coverage to ensure that all children under the age of two and pregnant women were fully immunized against seven life-threatening diseases. Four phases of Mission Indradhanush, until July 2017, reached 2.55 crore children and around 68.7 lakh pregnant women in 528 districts across the country. Please visit the link for the article: <https://goo.gl/9qhh83>

टीके से कैसा संकोच

टीकाकरण के मामले में हमारे देश में काफी संकोच बढ़ रहा है। टीका एक किफायती हथकण्डा है, जिससे असाध्य रोगों को रोकना और जीवन भर में स्वास्थ्य और सुख प्राप्त हो सकता है। वर्ष 2014 में के.ए.ए.ए. ने पूर्ण टीकाकरण का लक्ष्य निर्धारित करने के लिए 'मिशन इन्द्रधनुष' शुरू किया था। इसकी प्रारंभिक चरणों में टीकाकरण वाले 201 जिलों को चुना गया, जहाँ यह सुनिश्चित हो कि दो वर्ष के बच्चे टीका के साथ-साथ और गर्भवती महिलाओं को टीकाकरण के लिए प्रोत्साहित किया जा सके। 2017 तक मिशन इन्द्रधनुष के चार चरणों के दौरान यह अभियान देश के 28 जिलों में 2.55 करोड़ बच्चों और करीब 68.7 लाख गर्भवती महिलाओं तक पहुँच गया।

अनुसार, 2017 में इसे 173 जिलों और 17 लाख में भी मिशन इन्द्रधनुष (टीकाकरण मिशन इन्द्रधनुष-अभियान) के रूप में अग्रिम चरण के रूप में चलाया गया। 2018 तक मिशन इन्द्रधनुष के चार चरणों के दौरान यह अभियान देश के 28 जिलों में 2.55 करोड़ बच्चों और करीब 68.7 लाख गर्भवती महिलाओं तक पहुँच गया।

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टीकाकरण ने असंख्य जीवन बचाने के साथ दुनिया भर में स्वास्थ्य और कल्याण में सुधार किया है। अपने देश में पूर्ण टीकाकरण की चुनौतियों का मुकाबला जागरूकता से करना पड़ेगा।

नवीन ठाकर

टीकाकरण को प्रोत्साहित करने के लिए टीकाकरण के प्रति जागरूकता बढ़ाने में बहुत महत्व है। टीकाकरण के प्रति जागरूकता बढ़ाने के लिए टीकाकरण के प्रति जागरूकता बढ़ाने में बहुत महत्व है। टीकाकरण के प्रति जागरूकता बढ़ाने में बहुत महत्व है। टीकाकरण के प्रति जागरूकता बढ़ाने में बहुत महत्व है।

Dr. Naveen Thacker's article on Building Vaccine Confidence in India published in one of the newspapers of India



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Dr. Brea recently collaborated on a piece in the continued impact of varicella in Latin America and the Caribbean touching on the issues of national vaccine programs and vaccine coverage. The Latin American Society of Pediatric Infectious Diseases (SLIPE), with the support of the Americas Health Foundation (AHF), has developed a position paper on varicella prevention in Latin America and Caribbean countries (LAC). Varicella is a vaccine-preventable infectious disease, considered a 'benign disease' because of lower complication rates when compared with measles, pertussis. The incorporation of a two-dose varicella vaccine in national immunization schedules in all countries throughout LAC would be of great benefit to the health of the children. This article summarizes the most relevant aspects of varicella in LAC, and emphasizes the need to include the varicella vaccine in the national immunization programs in the Region and evaluate its impact disease burden. Please visit the link for the article:

<http://www.tandfonline.com/eprint/wtDWbXPpkaWqrpiw52G6/full>

Dr. Soans recently published an article in India Pediatrics about the unspoken and unseen dangers of the profession and the impact they make to credibility. We can see that there has been a steady trend of doctors being exposed to increasing risk of unwarranted behavior from patients, and if the patient has died, from their relatives. It is true that occasionally patient grievances are genuine. It is also true that in most cases the doctors' decisions are based on perfectly valid medically accepted norms. For every child that dies, hundreds more are saved from the jaws of death by the pediatricians. Please visit the link for the article: <https://goo.gl/PHNwRn>

Activism

The role of pediatricians does not stop at the bedside or the bench it can be taken to the public and we proudly acknowledge the efforts of Professor Rai Asghar, Pakistan Pediatrics Association (PPA) President, who participated in the Seminar and walk on *Child Rights and Child Abuse* at Rawalpindi Medical University in January. Making a public stand against inequities and injustice empowers those without a voice. A peaceful protest against child sexual abuse was also held in addition to the seminar. The IPA stands firmly committed to supporting the rights of children and to act against child abuse and neglect.



Seminar and walk on Child Rights and Child Abuse was organized at Rawalpindi Medical University organized by Pakistan Pediatric Association



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Also in January Dr. Brea represented ALAPE in a meeting with the Commission of the Rights of the Child of the United Nations with VocesCiudadanas. Together with the Network of Children and Adolescents for the Right to Health in Latin America and the Caribbean, this group discussed methods of motivating countries, to guarantee greater resources for the prevention, detection and management of immuno-preventable diseases. This was the first time the Latin American pediatric and civil societies were invited to discuss these issues with the UN Commissioner of the Rights of the Child. A historical meeting where, for the first time, a civil society entity such as VocesCiudadanas and the Latin American Association of Pediatrics -ALAPE- participate in such an important scenario as the United Nations Commissioner for the Rights of the Child, Geneva, Switzerland.



Dr. Jose Brea Del Castillo President of Asociación Latinoamericana de Pediatría (ALAPE) participated in the commission of the Rights of the Child of the United Nations

Dr. Zulkifli Ismail is working with Dr. Najeeb Rehman of Doctors Worldwide (DWW) to train young doctors doing volunteer works in Rohingya refugee camps. DWW's mission is to serve communities in need through the provision of sustainable medical relief and health based development programmes worldwide. See more in the link below. <https://m.youtube.com/watch?v=TEz6nbAh5LM&feature=youtu.be>

International Women's Day - March 8, 2018

Calling on expert women of member societies of the IPA. We're looking for help with our International Women's Day campaign. Are you interested in sharing a comment, a quote, or evidence on recent research or controversies in child health?

Contact membersupport@ipa-world.org for more information.

We want to hear from you

Engaged in groundbreaking work, have opportunities for advocacy, or recently published? Please share your work to

membersupport@ipa-world.org



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What's New

CRISPR-Cas. A SIMPLER TOOL WITH IMPORTANT CLINICAL APPLICATIONS.

CRISPR, a revolutionary tool that enables actual editing of DNA has been brought to the spotlight recently, are the initials of: *clustered regularly interspaced short palindromic repeats*. Under this acronym lie a series of biological systems that have boosted scientific knowledge and almost simultaneously clinical genomic applications.

Since the late 1980s, different direct repeats of a ~30 base pairs sequence interspaced by unique sequences of equal length were reported in different organisms, until finally a group of researchers at the University of Alicante (Spain) surveyed the repeats across *Bacteria* and *Archaea*, unifying them as belonging to the same family (1) Following additional contributions from the Dutch group (2) which had discovered several proteins associated to the repeats coded by the *cas* genes both agreed to use the acronym CRISPR (2, 3). Despite wide presence in prokaryotic groups, CRISPR function remained elusive, until the same group (3) proposed that they work as a bacterial adaptive immune system by detecting (viral) complementary sequences to the spacers (the mentioned short sequences that separate each instance of the repeat). In the coming years several types of CRISPR-Cas systems were described on the basis of their Cas proteins and mechanisms. Cas9 proved to detect and cleave the DNA target at a precise location (4), thus becoming a valuable tool. This fact

dramatically simplified the process of obtaining a protein that binds to a desired sequence, CRISPR tools were born and their application in gene editing brought them to stardom.

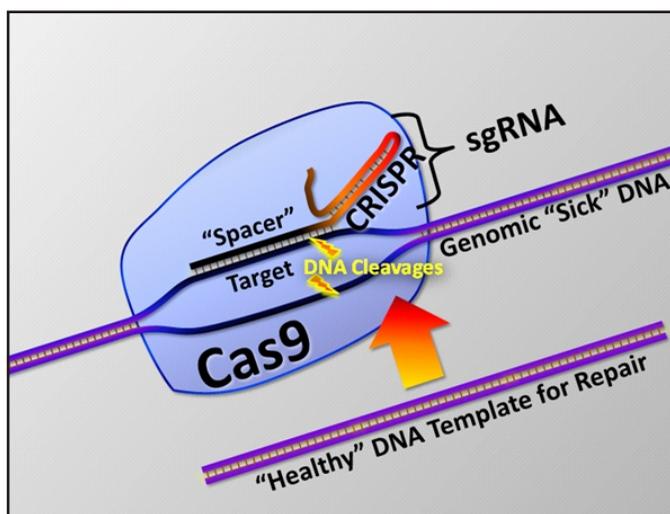


Figure. Basic mechanism of DNA editing using CRISPR-Cas9. The Cas9 nuclease binds the CRISPR sequence in sgRNA (single guide RNA) which also contains a protospacer (analogous to a spacer) that guides the complex to a complementary target sequence. The target "sick" sequence suffers then a cleavage in both strands, which the DNA repair enzymes will fix copying a DNA template with the "healthy" sequence. More details in text.

CRISPR-Cas9 is the most popular tool mainly because of its use in gene editing, its two components are: i) the CRISPR-associated Cas9 which in fact is an endonuclease, and ii) a single guide RNA (sgRNA) which includes the CRISPR sequence recognized by Cas9 and a probe (~20 nucleotides) complementary to the desired target, then allowing the attached endonuclease to cleave the disease-causing DNA sequence. A third addition to the mix is a small DNA template with the healthy sequence that will be copied



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to repair the broken genome (Figure). The initial success restoring function in knockout nucleotides continued as shown below. The great advantage of CRISPR-Cas9 is that the gene is repaired in situ, preserving all the elements required for its normal functions including promoter and enhancers. Furthermore the toxicity (carcinogenesis, leukemia) observed with the use of viral vectors (adeno-associated virus, lentivirus) because of the insertion of DNA in a random location, seems to be avoided with the use of CRISPR technology.

Clinical applications of CRISPR-Cas tools. Probably the first uses of gene editing were related to the more permissive field of plants to make them more resistant to virus or herbicides, to enhance their fruits flavor and its duration, these are representative milestones. Not to mention in cell cultures or embryos. The next step obviously is human disease. Previous gene therapy using viral vectors has achieved important success in clinical trials with a long list of human disease including B-cell lymphomas and leukemia, severe combined immunodeficiency, metachromatic leukodystrophy, and certain refractory solid tumors, also on monogenic diseases: Leber congenital amaurosis, lipoprotein lipase deficiency and thalassemia major. The cautious track of CRISPR whenever possible is similar to that of previous gene therapy methods, which usually implies the insertion of a new gene in the genome. The success treating mice suffering from Duchenne muscular dystrophy, fumaryl acetoacetate hydrolase deficiency or deafness really is the preliminary stage for humans (5). One of the brilliant applications is the diagnosis of infectious diseases in a rapid, inexpensive and sensitive way for detection and genotyping pathogens i.e. specific

strains of Zika and Dengue viruses (6). The next step has been a trial directed from the University of Pennsylvania for treatment of patients suffering from three types of cancer by means of engineering T cells in vitro by CRISPR and reinfusing back to the patients. In these clinical grounds the next goals are focused on the porcine organ transplantation, basically islet cells now, CRISPR-Cas is able to cut the porcine reverse transcriptase of retroviruses eliminating further cancer risk in the receptor. The hyperacute rejection of xenotransplantation is also a subject of study (7). Hemophilia A and B, are also a tentative field for CRISPR, due to treatment complexity with exogenous clotting factors (antibodies, periodicity, availability), gene replacement is considered a cure for both types but the CRISPR possibility appears as the more efficient and safe solution (8). Concerning Cystic Fibrosis for the most common and severe homozygous Phe 508 del mutation, the used potentiators or correctors for CFTR protein are far from optimal, then CRISPR (or gene therapy) could be a valuable option but not yet undertaken.

The future possible uses of CRISPR for repairing gene mutation in human embryos is quite promising as has been the case of correcting the MYBPC3 gene mutation leading to Familial hypertrophic cardiomyopathy (9). Ethical thinking more apparent in the Occidentalized medical world that in China, relate to the eventual risks of germline gene editing. It is a polemic question but ethical concerns are often informed by advancing science and we are now possibly at the gate of additional preventive actions for genetic diseases.

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Queridos amigos

Se aproxima una fecha importante para la Pediatría Mundial Marzo 17, 2019. Panamá será la Sede del Congreso Mundial de Pediatría (IPA 2019), el cual sabemos que estará lleno de excelentes ponencias y renombrados expositores.

Trabajamos arduamente para que los participantes se sientan en casa y disfruten no solo del carácter científico del evento, sino de las bondades de nuestro país Panamá, que se esfuerza para que sus visitantes no se crean foráneos. Celebren con los panameños los 500 años de Fundación de la Ciudad de Panamá y disfruten una de las maravillas del mundo, el Canal de Panamá.

El lema **“trabajando por los niños”** se verá reflejado en nuestras plenarias, los talleres, las conversaciones con los expertos.

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Dear Friends,

An important date for the world of pediatrics is approaching March 17th, 2019.

Panama will be the headquarters of the 29th International Pediatric Association Congress (IPA 2019), which we know will be full of excellent presentations and renowned lecturers.

We are working hard to make participants feel at home and enjoy not only the scientific nature of the event, but also the kindness of our country Panama, which strives to ensure that its visitors do not think of themselves as outsiders.

Come and celebrate with the Panamanians the 500 years of Foundation of the City of Panama, and enjoy one of the wonders of the world, the Panama Canal.

The theme **“Partnerships for Children”** will be reflected in our plenaries, workshops, meet the experts. For more information visit <http://www.ipa2019congress.com/>

We are waiting for you in Panama

Mariana E. Lopez S

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