IMMIGRANTS AND NOBEL PRIZES: 1901-2025

EXECUTIVE SUMMARY

Immigrants have been awarded 40% of the Nobel Prizes won by Americans in chemistry, medicine and physics since 2000, according to an analysis by the National Foundation for American Policy (NFAP).[1] In 2025, three of the six U.S. winners in the three Nobel Prize science categories were immigrants to the United States. In 2025, the only U.S. winner of the Nobel Prize in chemistry was an immigrant, and two of the three U.S. recipients of the Nobel Prize in physics were immigrants. In 2023, four of the six U.S. recipients of Nobel Prizes in medicine, chemistry and physics were immigrants to the United States. In 2021, three of the four U.S. recipients of Nobel Prizes in medicine, chemistry and physics were immigrants to America. Between 1901 and 2025, immigrants have been awarded 36% of the Nobel Prizes won by Americans in chemistry, medicine and physics.

Table 1
U.S. Nobel Prize Winners in Chemistry, Medicine and Physics: 2000-2025

Category	Immigrant	Native-Born	Percentage of Immigrant Winners
Physics	19	23	45%
Chemistry	17	23	43%
Medicine	12	26	32%
TOTAL	48	72	40%

Source: National Foundation for American Policy, Royal Swedish Academy of Sciences, George Mason University Institute for Immigration Research.

Omar M. Yaghi, who won the 2025 Nobel Prize in chemistry, has a remarkable immigrant journey. He was born into a refugee family in Jordan. At his father's urging, he obtained a visa to study in the United States while a teenager, arriving in America alone with limited English proficiency. Living in Troy, New York, he initially attended a community college and later graduated with a B.S. in chemistry from the State University of New York at Albany. He went on to earn a Ph.D. at the University of Illinois at Urbana-Champaign and held a series of faculty positions at Arizona State University, the University of Michigan, and UCLA in 2007, before joining the chemistry faculty at UC Berkeley.

Yaghi received the Nobel Prize "for the development of metal–organic frameworks," sharing the award with Susumu Kitagawa of Japan and Richard Robson of Australia. "The Nobel Prize laureates in chemistry 2025 have created molecular constructions with large spaces through which gases and other chemicals can flow," according to the Royal Swedish Academy of Sciences. "These constructions, *metal–organic frameworks*, can be used to harvest water from desert air, capture carbon dioxide, store toxic gases or catalyse chemical reactions."[2]

[1] This research updates *Immigrants and Nobel Prizes: 1901-2023*, NFAP Policy Brief, National Foundation for American Policy, October 2023. For more background on Nobel Prize winners, see https://www.nobelprize.org/.
[2] Nobel Prize in Chemistry 2025, press release, Royal Swedish Academy of Sciences, October 8, 2025.

"I was born in a family of refugees, and my parents barely could read or write," he said in an interview with the Royal Swedish Academy of Sciences. "It is quite a journey, and science allows you to do it. Science is a great equalizing force in the world." He said, "Smart people, talented people, skilled people, exist everywhere. That's why we really should focus on unleashing their potential through providing them with opportunity."[3]

In 2025, Michel H. Devoret, an immigrant from France, and John Clarke, an immigrant from the United Kingdom, shared the Nobel Prize for physics with John M. Martinis, who was born in the United States. The three men shared the prize "for the discovery of macroscopic quantum mechanical tunnelling and energy quantisation in an electric circuit." Devoret's affiliation at the time of the award was as a professor at Yale University and the University of California, Santa Barbara. Clarke's affiliation was as a professor at the University of California, Berkeley. Although no immigrants to the United States won the 2025 Nobel Prize in physiology or medicine, Shimon Sakaguchi was an assistant professor at Scripps Research in California from 1989 to 1991 before returning to Japan.[4] Mary E. Brunkow and Fred Ramsdell, both born in America, shared the 2025 Nobel Prize in physiology or medicine with Sakaguchi.

Among the findings of this report:

- Since 1901, immigrants have been awarded 38% of the U.S. Nobel Prizes in physics, 38% in chemistry and 33% in medicine.

- Immigration laws matter, particularly in determining whether the United States gains from increased globalization and rising educational achievement in the world. The Immigration and Nationality Act of 1965 eliminated the discriminatory national origin quotas and opened the door to Asian immigrants, while the Immigration Act of 1990 increased employment-based green card numbers. Those two pieces of legislation have been essential factors in attracting international students to the country and enhancing America's ability to assimilate talented individuals into its culture and economy.

- The rise in immigrant Nobel Prize winners reflects an overall increase in the reputation and capability of American institutions and researchers post-1960, and a greater openness to immigration has helped make the United States the leading global destination for research in many different science and technology fields, including computer and information sciences, cancer research and others.

[3] https://www.nobelprize.org/prizes/chemistry/2025/yaghi/interview/.
[4] "Former Scripps Research assistant professor awarded 2025 Nobel Prize in Physiology or Medicine," news release, Scripps Research, October 6, 2025.

- One can see the increasing influence and importance of immigrants on science in America reflected in Nobel Prize winners. Between 1901 and 1959, immigrants won 22 Nobel Prizes in chemistry, medicine and physics, but won 96 prizes in these fields – *more than four times as many* – between 1960 and 2025.

- The pre-1960 immigrant (and U.S.) Nobel Prize total would have been lower if not for the many Jewish scientists who overcame significant restrictions against immigration in the 1930s and fled to the United States to escape European fascism.

- Since 2000, immigrants have been awarded 45% of the U.S. Nobel Prizes in physics, 43% in chemistry and 32% in medicine.

In 2024, three immigrants to America won the Nobel Prize in economics. "This year's laureates in the economic sciences—Daron Acemoglu, Simon Johnson and James Robinson—have demonstrated the importance of societal institutions for a country's prosperity," according to the Royal Swedish Academy of Sciences press release issued for the 2024 Nobel Prize in economics. Acemoglu immigrated from Turkey, and Johnson and Robinson immigrated from the United Kingdom. Immigrants also have been awarded 31% of the Nobel Prizes won by Americans in economics, including 28% since 2000, according to a National Foundation for American Policy analysis.[5]

In 2023, Katalin Karikó, an immigrant from Hungary, and Drew Weissman shared the Nobel Prize in physiology or medicine "for their discoveries concerning nucleoside base modifications that enabled the development of effective mRNA vaccines against COVID-19."[6] Karikó and Weissman are affiliated with the University of Pennsylvania. Karikó solved the problem plaguing mRNA: the body fought the new chemical after an injection. "While mRNA is best known for Covid vaccines, the technology's greatest promise may be in treating cancer and other diseases," according to the *Wall Street Journal*. In 2023, Pierre Agostini, an immigrant to the United States from France and a professor at Ohio State, shared the Nobel Prize in physics with two French scientists "for experimental methods that generate attosecond pulses of light for the study of electron dynamics in matter." In 2023, immigrants Moungi G. Bawendi (born in France) and Alexei I. Ekimov (born in the former USSR) shared the Nobel Prize in chemistry with Louis E. Brus (born in the U.S.) "for the discovery and synthesis of quantum dots." The scientists are credited with planting the seeds for nanotechnology.

The achievements of immigrants, in the form of Nobel Prizes, successful businesses, and contributions in other fields, are a testament to the American Dream. Being open to immigration has enabled America to attract talented and ambitious individuals and to benefit from their scientific and technological innovations.

[5] Economics prize numbers through 2024.
[6] https://www.nobelprize.org/prizes/medicine/2023/kariko/facts/.

HISTORY

Between 1901 and 2025, immigrants have been awarded 36% of the Nobel Prizes won by Americans in chemistry, medicine and physics. (See Table 2.) Since 1901, immigrants have been awarded 38% of the U.S. Nobel Prizes in physics, 38% in chemistry and 33% in medicine. These numbers do not include Nobel Prize winners who immigrated to America *after* receiving a Nobel Prize, such as Albert Einstein, Enrico Fermi and Niels Bohr. Donna Strickland, who shared a 2018 Nobel Prize in physics with Gérard Mourou, is also not included as a U.S. recipient, though the Canadian-born professor was an international student in America when she conducted her groundbreaking research and received a Ph.D. from the University of Rochester in New York.

Table 2
U.S. Nobel Prize Winners in Chemistry, Medicine and Physics: 1901-2025

Category	Immigrant	Native-Born	Percentage of Immigrant Winners
Physics	45	73	38%
Chemistry	33	55	38%
Medicine	40	83	33%
TOTAL	118	211	36%

Source: National Foundation for American Policy, Royal Swedish Academy of Sciences, George Mason University Institute for Immigration Research. Numbers and percentages for chemistry, medicine and physics prizes.

These achievements by immigrants highlight the benefits to America of welcoming talent from around the world. The findings do not mean America should welcome only Nobel Prize winners. Such a policy would be highly restrictive. Moreover, most immigrant Nobel Prize winners entered the United States many years before being awarded this honor. Most people immigrate to another country in their twenties, particularly employment-based immigrants to the United States, who either study in America or come here to work shortly after obtaining a degree abroad. As of 2016, the average age of Nobel Prize winners at the time of the award is 59.5 years, according to economist Mark J. Perry.[7]

Nobel Prize winners represent outstanding individual achievement and reflect the state of research, openness and scientific advancement within a society. American students, research colleagues and the U.S. economy gain from the work performed by outstanding scientists and researchers, including Nobel Prize winners.

History shows that immigration laws matter. The Immigration and Nationality Act of 1965 eliminated the discriminatory national origin quotas and opened the door to Asian immigrants, while the Immigration Act of 1990

[7] Mark J. Perry, "Looking back at the remarkable history of the Nobel Prize from 1901-2016 using maps, charts and tables," Carpe Diem, October 13, 2016.

increased employment-based green card numbers. Those two pieces of legislation have been essential in attracting international students to the country and enhancing America's ability to integrate talented individuals into its culture and economy. The rise in immigrant Nobel Prize winners reflects an overall increase in the reputation and capability of American institutions and researchers post-1960, and a greater openness to immigration has helped make the United States the leading global destination for research in many different science and technology fields, including computer and information sciences, cancer research and others.

On May 31, 2025, in a statement on X.com, White House Deputy Chief of Staff Stephen Miller wrote, "During the middle of the 20th century—when the U.S. achieved unquestioned global scientific dominance—there was net zero migration. From the 20's to the 70's the foreign-born population was cut almost by half while the overall population doubled. (Until Hart-Celler kicked in)."

Contrary to Miller's statement, American science owes a great deal to immigrants in the post-war period. Between 1945 and 1974, 16 of the 30 U.S. winners of the Nobel Prize in physics were immigrants, according to an NFAP analysis.[8]

Between 1945 and 1974, 15 of the 36 U.S. Nobel Prizes in medicine, or 42%, were awarded to immigrants. Albert Sabin, an immigrant from Poland, and Jonas Salk, the son of an immigrant, developed the vaccines that ended polio as a threat to Americans. Both men were in America due to family immigration. "Without Sabin and Salk, American children would continue to be paralyzed for life by polio," Michel Zaffran, director of polio eradication at the World Health Organization, said in an interview. "Their contribution is quite simply immeasurable."[9]

The 1924 Immigration Act, which reduced the flow of immigrants by approximately 90% and blocked Jews, Eastern Europeans and Asians, harmed America economically. According to research by New York University economists Petra Moser and Shmuel San, the restrictive immigration quotas of the 1920s significantly reduced invention in the United States.

"After the quotas, U.S. scientists produced 68% fewer additional patents in the pre-quota fields of ESE-born [Eastern and Southern European immigrant] scientists compared with the pre-quota fields of other U.S. scientists," write Moser and San. "Time-varying effects show a large decline in invention by U.S. scientists in the 1930s, which persisted into the 1960s." Moser and San said the results show that U.S. scientists benefited from the presence of immigrant scientists but suffered after U.S. immigration restrictions blocked their entry.

[8] This section is adapted from Stuart Anderson, "Immigration Research Shows Stephen Miller Wrong About American Science," *Forbes*, June 1, 2025.
[9] Ibid.

Sir J. Fraser Stoddart, winner of the Nobel Prize in chemistry in 2016 and an immigrant from the United Kingdom, noted that "his research group at Northwestern University has students and scientists from a dozen different countries." Stoddart believed scientific research would remain strong in America "as long as we don't enter an era where we turn our back on immigration."

The increasing influence and importance of immigrants on science in America is reflected in the number of Nobel Prize winners. Between 1901 and 1959, immigrants won 22 Nobel Prizes in chemistry, medicine and physics, but won 96 prizes in these fields – *more than four times as many* – between 1960 and 2023. The pre-1960 immigrant (and U.S.) Nobel Prize total would have been lower if not for the many Jewish scientists who overcame significant restrictions against immigration in the 1930s and fled to the United States to escape European fascism.

The difference between the two periods, spanning approximately the same number of years, illustrates the importance of changes in U.S. immigration law, particularly the Immigration and Nationality Act of 1965, which ended the restrictive "national origins" quotas that had prevented people from much of the world, including Asia, from immigrating to the United States. The Immigration Act of 1990 increased immigration quotas for employment-based green cards. The openness of the United States to international students from around the world, combined with the overall rise in the reputation and capabilities of American institutions and researchers since the 1960s, has made the United States the leading global destination for research in many science and technology fields.

Several of the earliest U.S. winners of the Nobel Prize in physics were Jewish scientists who fled Europe after the rise of Hitler and Mussolini. These scientists were crucial in America becoming the first nation to develop the atomic bomb. In 1954, the Atomic Energy Act established an award to recognize scientific achievements in atomic energy. The first winner of the award was the Italian-born Enrico Fermi. After his death, the award became known as the Enrico Fermi Award, and five of the first eight winners were immigrants. Four of the nuclear scientists who came to the United States from Europe in the 1930s and later received a Nobel Prize for physics were Felix Bloch (1952), born in Switzerland, Emilio Segre (1959), born in Italy, Maria Mayer (1963), born in Poland, and Eugene Wigner (1963), born in Hungary.

CHEMISTRY

In 2025, Omar M. Yaghi, an immigrant from Jordan, was the only U.S. winner of the Nobel Prize in chemistry "for the development of metal–organic frameworks." He shared the award with Susumu Kitagawa of Japan and Richard Robson of Australia. Yaghi is the James and Neeltje Tretter Chair in the College of Chemistry and co-director of the Kavli Energy NanoSciences Institute at UC Berkeley. "The Nobel Prize laureates in chemistry 2025 have created

molecular constructions with large spaces through which gases and other chemicals can flow," according to the Royal Swedish Academy of Sciences. "These constructions, *metal–organic frameworks*, can be used to harvest water from desert air, capture carbon dioxide, store toxic gases or catalyse chemical reactions." [10]

"They have developed a new form of molecular architecture. In their constructions, metal ions function as cornerstones that are linked by long organic (carbon-based) molecules. Together, the metal ions and molecules are organised to form crystals that contain large cavities. These porous materials are called metal–organic frameworks (MOF). By varying the building blocks used in the MOFs, chemists can design them to capture and store specific substances. MOFs can also drive chemical reactions or conduct electricity."[11]

According to the Royal Swedish Academy of Sciences, "Following the laureates' groundbreaking discoveries, chemists have built tens of thousands of different MOFs. Some of these may contribute to solving some of humankind's greatest challenges, with applications that include separating PFAS from water, breaking down traces of pharmaceuticals in the environment, capturing carbon dioxide or harvesting water from desert air."[12]

Omar M. Yaghi has a remarkable immigrant journey. "I was born in a family of refugees, and my parents barely could read or write," he said in an interview with the Royal Swedish Academy of Sciences. "It is quite a journey, and science allows you to do it. Science is a great equalizing force in the world." He said, "Smart people, talented people, skilled people, exist everywhere. That's why we really should focus on unleashing their potential through providing them with opportunity."[13]

"At the age of 15, he was told by his father that he must go to the U.S. to study and, within the year before he graduated from high school, he had obtained a visa and settled alone, in Troy, New York, to pursue his college education," according to a news release from UC Berkeley. "With a poor grasp of English, Yaghi took courses in English, math and science at Hudson Valley Community College in Troy before transferring to the State University of New York at Albany in 1983."[14]

"I was in love with chemistry from the very beginning," Yaghi said. "And when I moved to Albany, I immediately got into research. I was doing three different projects with three different professors at the same time: a physical organic project with one professor, a biophysical project with another and a theory project with a third professor. I really loved the lab. I disliked class, but I loved the lab."[15]

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[10] Nobel Prize in Chemistry 2025, press release, Royal Swedish Academy of Sciences, October 8, 2025.
[11] Ibid.
[12] Ibid.
[13] https://www.nobelprize.org/prizes/chemistry/2025/yaghi/interview/.
[14] https://www.universityofcalifornia.edu/news/uc-berkeley-omar-yaghi-shares-2025-nobel-prize-chemistry.
[15] Ibid.

He supported himself "bagging groceries and mopping floors," and graduated in 1985 in Albany with a B.S. in chemistry *cum laude.* He completed a Ph.D. at the University of Illinois at Urbana-Champaign. "Following a National Science Foundation postdoctoral fellowship at Harvard University, he joined the faculty at Arizona State University in 1992, then at the University of Michigan in 1999 and, after that, at UCLA in 2007. In 2012, he joined the chemistry faculty at UC Berkeley and became director of the Molecular Foundry at Lawrence Berkeley National Laboratory, a position he held until 2013. He is the founding director of the Berkeley Global Science Institute and co-director of the Kavli Energy NanoScience Institute and of the California Research Alliance by BASF."[16]

Table 3
Immigrant Nobel Prize Winners in Chemistry: 2000-2025

YEAR	WINNER	PLACE OF BIRTH	U.S. AFFILIATION
2000	Alan G. MacDiarmid	New Zealand	University of Pennsylvania
2002	Kurt Wüthrich	Switzerland	The Scripps Research Institute
2008	Osamu Shimomura	Japan	Marine Biological Laboratory, Boston University Medical School
2010	Ei-ichi Negishi	China	Purdue University
2011	Dan Shechtman	Palestine	Iowa State
2013	Martin Karplus	Austria	Harvard University
2013	Michael Levitt	South Africa	Stanford University School of Medicine
2013	Arieh Warshel	Israel	University of Southern California
2015	Aziz Sancar	Turkey	University of North Carolina School of Medicine
2016	Sir J. Fraser Stoddart	UK	Northwestern University
2017	Joachim Frank	Germany	Columbia University
2019	M. Stanley Whittingham	UK	Binghamton University, State University of New York
2021	David W.C. MacMillan	UK	Princeton University
2023	Moungi Bawendi	France	MIT
2023	Alexei Ekimov	Former USSR	Nanocrystals Technology Inc.
2025	Omar M. Yaghi	Jordan	University of California, Berkeley, CA

Source: National Foundation for American Policy. Royal Swedish Academy of Sciences, George Mason University Institute for Immigration Research.

In 2023, immigrants Moungi G. Bawendi (born in France) and Alexei I. Ekimov (born in the former USSR) shared the Nobel Prize in chemistry with Louis E. Brus (born in the U.S.) "for the discovery and synthesis of quantum dots." The scientists are credited with planting the seeds for nanotechnology. "The Nobel Prize in chemistry 2023 rewards the discovery and development of *quantum dots*, nanoparticles so tiny that their size determines their properties," according to the Royal Swedish Academy of Sciences. "These smallest components of nanotechnology now spread

[16] Ibid.

their light from televisions and LED lamps, and can also guide surgeons when they remove tumor tissue, among many other things."[17]

At the time of the award, Bawendi was affiliated with MIT, Brus with Columbia University and Ekimov with Nanocrystals Technology Inc. in New York. "Quantum dots now illuminate computer monitors and television screens based on QLED technology," according to the Royal Swedish Academy of Sciences. "They also add nuance to the light of some LED lamps, and biochemists and doctors use them to map biological tissue. Quantum dots are thus bringing the greatest benefit to humankind."[18]

In 2021, David W.C. MacMillan, born in Scotland and now a professor of chemistry at Princeton University, was awarded the Nobel Prize in chemistry. He came to the United States as an international student and earned a Ph.D. at the University of California-Irvine. MacMillan shared the award with Benjamin List, director of the Max Planck Institute for Coal Research in Germany. List was also an assistant professor at the Scripps Research Institute in California.[19]

"The Nobel Prize in chemistry was awarded to Benjamin List and David W.C. MacMillan for their development of a new tool to build molecules, work that has spurred advances in pharmaceutical research and lessened the impact of chemistry on the environment," reported the *New York Times*. "Their work, while unseen by consumers, is an essential part in many leading industries and is crucial for research."[20]

Between 1901 and 1959, only one immigrant to the United States (William Francis Giauque) won the Nobel Prize in chemistry, while between 1960 and 2025, 32 immigrants were awarded the Nobel Prize for chemistry.

Medicine

In 2023, Katalin Karikó, an immigrant from Hungary, and Drew Weissman shared the Nobel Prize in physiology or medicine "for their discoveries concerning nucleoside base modifications that enabled the development of effective mRNA vaccines against COVID-19."[21] Both are affiliated with the University of Pennsylvania.

"It is a story that began three decades ago, with a little-known scientist who refused to quit," writes Damian Garde of *STAT*. "Before messenger RNA was a multibillion-dollar idea, it was a scientific backwater. And for the Hungarian-

[17] https://www.nobelprize.org/prizes/chemistry/2023/press-release/.
[18] Ibid.
[19] Marc Santora and Cora Engelbrecht, "Nobel Prize in Chemistry Awarded to Scientists for Creating a Tool to Build Molecules," *New York Times*, October 6, 2021.
[20] Ibid.
[21] https://www.nobelprize.org/prizes/medicine/2023/kariko/facts/.

born scientist behind a key mRNA discovery, it was a career dead-end. Katalin Karikó spent the 1990s collecting rejections. Her work, attempting to harness the power of mRNA to fight disease, was too far-fetched for government grants, corporate funding and even support from her own colleagues."[22]

After a decade of research at two U.S. universities, including with Drew Weissman, her "longtime collaborator at Penn," Karikó solved the problem plaguing mRNA, namely that the body fought the new chemical after an injection. "Karikó and Weissman [created] . . . a hybrid mRNA that could sneak its way into cells without alerting the body's defenses," writes Garde. "And even though the studies by Karikó and Weissman went unnoticed by some, they caught the attention of two key scientists – one in the United States, another abroad – who would later help found Moderna [Rossi] and Pfizer's future partner, BioNTech."[23]

Table 4
Immigrant Nobel Prize Winners in Medicine: 2000-2025

YEAR	WINNER	PLACE OF BIRTH	U.S. AFFILIATION
2000	Eric R. Kandel	Austria	Columbia University
2002	Sydney Brenner	South Africa	The Molecular Sciences Institute
2007	Mario R. Capecchi	Italy	University of Utah, Howard Hughes Medical Institute
2007	Oliver Smithies	United Kingdom	Univ. of North Carolina Chapel Hill
2009	Elizabeth H. Blackburn	Australia	University of California, San Francisco
2009	Jack W. Szostak	United Kingdom	Harvard Medical School
2011	Ralph M. Steinman	Canada	Rockefeller University
2012	Shinya Yamanaka	Japan	Gladstone Institutes
2013	Thomas Südhof	Germany	Stanford University
2015	William C. Campbell	Ireland	Drew University
2021	Ardem Patapoutian	Lebanon	Howard Hughes Medical Institute, Scripps Research
2023	Katalin Karikó	Hungary	University of Pennsylvania

Source: Royal Swedish Academy of Sciences, National Foundation for American Policy, George Mason University Institute for Immigration Research.

Karikó lives and works in America and is a senior vice president at BioNTech, a German-based company that developed an mRNA vaccine in partnership with Pfizer to combat Covid-19. "While mRNA is best known for Covid vaccines, the technology's greatest promise may be in treating cancer and other diseases," wrote the *Wall Street Journal* in an editorial. "Pharmaceutical companies are working on personalized mRNA-based cancer vaccines that target unique proteins on tumors. Early-stage trials have yielded promising results in melanoma and pancreatic

[22] As cited in Stuart Anderson, "Trump Takes Credit For Vaccine Created By Others, Including Immigrants," *Forbes*, December 1, 2020.
[23] Ibid.

cancer. Drug makers are also experimenting with mRNA to treat autoimmune and rare diseases. Much of this innovation is occurring in the U.S., where risk-taking is still (for the most part) encouraged and rewarded. Ms. Kariko and Dr. Weissman have demonstrated what determination and creativity can accomplish."[24]

In 2021, Ardem Patapoutian, an immigrant from Lebanon, shared the 2021 Nobel Prize in physiology or medicine, with David Julius, born in the United States. Dr. Patapoutian is a professor in the Dorris Neuroscience Center at Scripps Research in La Jolla, CA, and a Howard Hughes Medical Institute investigator. The two men received their prize for "groundbreaking research that solved a long-standing mystery of how the body senses touch and other mechanical stimuli."[25]

"Dr. Patapoutian, who is of Armenian origin, grew up in Lebanon during the country's long and calamitous civil war before fleeing to the United States with his brother in 1986 at age 18," reported the *New York Times*. "Needing to establish residency in California so that he could afford college, Dr. Patapoutian worked eclectic jobs for a year, delivering pizzas and writing the weekly horoscopes for an Armenian newspaper. At UCLA, in the course of preparing to apply to medical school, he joined a research laboratory so that the professor would write him a good recommendation."[26]

He told the *New York Times*: "I fell in love with doing basic research. That changed the trajectory of my career." Illustrating how immigration can change an individual's horizons and allow them to fulfill their potential, he said, "In Lebanon, I didn't even know about scientists as a career."[27]

In a brief autobiography, Dr. Patapoutian wrote that he came to Los Angeles after being "captured and held by armed militants" in Lebanon: "I had three havens of childhood I remember with fondness: my sports club where I played basketball (not well, see height above) and table tennis (local champ!), our trips to the Mediterranean Sea and the wooded mountains surrounding Beirut, and the beautiful campus of the American University of Beirut, where I attended one year of undergraduate classes as a pre-med major. However, the conflict continued to escalate, and one fateful and terrifying morning, I was captured and held by armed militants. A few months later, I moved to Los Angeles. This first year in LA was a different kind of struggle to adapt, perhaps as challenging a year as a young adult as any I had experienced as a child in Beirut. Suffice to say, a highlight was writing horoscopes for the local Armenian newspaper. What a relief it was to gain admission to UCLA to resume my student life."[28]

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[24] "A Nobel for Advancing mRNA," The Editorial Board, *The Wall Street Journal*, October 2, 2023.
[25] https://www.scripps.edu/news-and-events/press-room/2021/20211004-ardem-patapoutian-wins-nobel-prize-in-medicine.html.
[26] Benjamin Mueller, Marc Santora and Cora Engelbrecht, "Nobel Prize Awarded for Research About Temperature and Touch, *New York Times*, October 5, 2021.
[27] Ibid.
[28] https://www.aub.edu.lb/articles/Pages/Nobel_Prize_AUB_alumnus_Ardem_Patapoutian.aspx.

Elizabeth Blackburn, born in Australia, shared the 2009 Nobel Prize for medicine with Jack Szostak (Harvard Medical School), a British-born immigrant to the U.S., and American-born Carol Greider (Johns Hopkins University School of Medicine). Greider was Elizabeth Blackburn's student in 1985 when they "published a paper announcing the discovery of the enzyme telomerase."[29] Blackburn was a professor of Biology and Physiology at the University of California San Francisco (UCSF). She came to America in 1978, more than 30 years before she won the Nobel Prize, to teach at the University of California Berkeley, before joining the faculty at UCSF in 1990.[30]

From 1901 to 1959, nine immigrants to the United States won the Nobel Prize for medicine, but 31 immigrants were awarded the Nobel Prize for medicine from 1960 to 2025.

PHYSICS

In 2025, Michel H. Devoret, an immigrant from France, and John Clarke, an immigrant from the United Kingdom, shared the Nobel Prize for physics with U.S.-born John M. Martinis. The three men received the prize "for the discovery of macroscopic quantum mechanical tunnelling and energy quantisation in an electric circuit." Devoret's affiliation at the time of the award was as a professor at Yale University and the University of California, Santa Barbara. Clarke's affiliation was as a professor at the University of California, Berkeley.

"A major question in physics is the maximum size of a system that can demonstrate quantum mechanical effects," according to a Nobel Prize Committee press release. "This year's Nobel Prize Laureates conducted experiments with an electrical circuit in which they demonstrated both quantum mechanical tunnelling and quantised energy levels in a system big enough to be held in the hand." According to the committee, "The transistors in computer microchips are one example of the established quantum technology that surrounds us. This year's Nobel Prize in Physics has provided opportunities for developing the next generation of quantum technology, including quantum cryptography, quantum computers and quantum sensors."[31]

In 2023, Pierre Agostini, an immigrant to the United States from France, shared the Nobel Prize in physics with two French scientists. Agostini came to Ohio State in 2005 and became a professor emeritus of physics. "At Ohio State, Agostini works with Louis DiMauro, a professor of physics in the Agostini-DiMauro Ultra-fast Atomic Physics Research Group," according to *Ohio State News*. "DiMauro said that Agostini's work allowed scientists to capture the movement of electrons – which can move at the astonishing rate of 43 miles per second. Agostini and the other

[29] Goutam Naik, "U.S. Cell-Aging Researchers Awarded Nobel," *The Wall Street Journal*, October 6, 2009, A5.
[30] Dr. Elizabeth Blackburn, Blackburn Lab, University of California San Francisco.
[31] "The Nobel Prize in Physics 2025," The Royal Swedish Academy of Sciences, October 7, 2025.

laureates created techniques to capture electrons using pulses of light that last just an attosecond – one quintillionth of a second.."[32]

Table 5
Immigrant Nobel Prize Winners in Physics: 2000-2025

YEAR	WINNER	PLACE OF BIRTH	U.S. AFFILIATION
2000	Herbert Kroemer	Germany	University of California, Santa Barbara
2001	Wolfgang Ketterle	West Germany	Massachusetts Institute of Technology (MIT)
2002	Riccardo Giacconi	Italy	Associated Universities Inc.
2003	Anthony J. Leggett	United Kingdom	University of Illinois, Urbana
2003	Alexei A. Abrikosov	USSR/Russia	Argonne National Laboratory
2008	Yoichiro Nambu	Japan	University of Chicago
2009	Willard S. Boyle	Canada	Bell Laboratories
2014	Shuji Nakamura	Japan	University of California, Santa Barbara
2016	David J. Thouless	United Kingdom	University of Washington
2016	F. Duncan M. Haldane	United Kingdom	Princeton University
2016	J. Michael Kosterlitz	United Kingdom	Brown University
2017	Rainer Weiss	Germany	Massachusetts Institute of Technology (MIT)
2018	Gérard Mourou	France	University of Michigan
2019	James Peebles	Canada	Princeton University
2020	Reinhard Genzel	Germany	University of California, Berkeley
2021	Syukuro Manabe	Japan	Princeton University
2023	Pierre Agostini	France	Ohio State University
2025	Michel H. Devoret	France	Yale University and University of California, Santa Barbara
2025	John Clarke	United Kingdom	University of California, Berkeley

Source: National Foundation for American Policy, Royal Swedish Academy of Sciences, George Mason University Institute for Immigration Research.

"Scientists Pierre Agostini, Ferenc Krausz and Anne L'Huillier won the 2023 Nobel Prize in physics for creating ultra-short pulses of light that can give a snapshot of changes within atoms, potentially leading to better detection of disease," reports Reuters. "The prize-awarding academy said their studies had given humanity new tools for

[32] https://news.osu.edu/ohio-states-agostini-wins-nobel-prize-in-physics/.

exploring the movement of electrons inside atoms and molecules, a phenomenon that was long thought impossible to trace."[33]

In physics, 12 immigrants won the Nobel Prize from 1901 to 1959, while 33 immigrants won the Nobel Prize for Physics between 1960 and 2025.

CONCLUSION

The achievements of immigrants, in the form of Nobel Prizes, thriving businesses, and contributions in other fields, are a testament to the American Dream. Being open to immigration allows America to reap the benefits of scientific and technological innovation. When one asks successful entrepreneurs and scientists conducting groundbreaking research whether they favor liberalized policies on immigration, the answer they invariably give is that more immigration and greater openness to international students, researchers and immigrants across the skill spectrum would help America grow and prosper.

[33] https://www.reuters.com/science/agostini-krausz-lhuillier-win-2023-nobel-prize-physics-2023-10-03/.

ABOUT THE NATIONAL FOUNDATION FOR AMERICAN POLICY

Established in 2003, the National Foundation for American Policy (NFAP) is a 501(c)(3) nonprofit, nonpartisan public policy research organization based in Arlington, Virginia, focusing on trade, immigration and related issues. Advisory Board members include Columbia University economist Jagdish Bhagwati, Cornell Law School professor Stephen W. Yale-Loehr, Ohio University economist Richard Vedder and former INS Commissioner James Ziglar. Over the past 24 months, NFAP's research has been written about in the *Wall Street Journal*, the *New York Times*, the *Washington Post*, and other major media outlets. The organization's reports can be found at www.nfap.com. Twitter: **@NFAPResearch**

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