Russian Garden Gazette

A Digital Journal of the Russian Cultural Garden, Cleveland

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Three Doctors and Music

Jerome Gross · Boris Vinogradsky · Igor Efimov · The New Entry Plaza · Dostoevsky

ISSUE #22 · NOVEMBER 5, 2026

Three Doctors and Music

In our last issue we promised you three doctors. Here they are. A surgeon who spent hours every day playing a Stradivarius. A surgeon who plays no instrument at all, but has a gift for bringing people together around a common cause. And a scientist who studies the electrical storms inside the human heart — and confesses that what he would most like is to be able to play the piano.

Each of them has his own music. Also in this issue: the Garden's new Entry Plaza, and a promised meeting with Dostoevsky — which, as it turns out, will not go ahead without a doctor and a violin either.

Svetlana Stolyarova

Editor, The Russian Garden Gazette

The Second Mrs. Gross

Jerome Gross: surgeon, violinist, and his Stradivarius

At Cleveland City Hospital there was exactly one room where Dr. Jerome Gross could practise the violin without disturbing anyone. It was the morgue.

Not the most romantic of rehearsal rooms, but the only one in the building that was properly soundproof. And whenever the chief of surgery found a free hour between operations, that is where he went with his violin.

By the accounts of those who knew him, Gross practised for anywhere from one to six hours a day. Given his profession, it is hard to imagine where he found the time. But perhaps that is the wrong question. For Jerome Gross, the violin was not a rest from surgery. Both were his life.



Dr. Jerome Gross. Cleveland Public Library.

Five Brothers, Five Doctors

Jerome Gross was born in Russia on May 15, 1904, and grew up in Cleveland. He was the eldest of five brothers, and all five became doctors and musicians.

Jerome began the violin at ten. Later, to pay for his education, he played in theater orchestras and hotel string quartets. He studied at Adelbert College, Fordham University and the Western Reserve University School of Medicine.

In the end medicine won — at least as far as the professional directories were concerned. Gross became a surgeon, practising at Mount Sinai, Cleveland Metropolitan General and Women's Hospital, and heading the department of surgery at City Hospital.

Yet the violinist in him did not merely survive; he kept growing. Gross studied with outstanding musicians — Toscha Seidel and Oscar Shumsky — and played chamber music with Arthur Loesser.

He gave solo recitals, served as concertmaster of the Cleveland Philharmonic, and appeared with The Cleveland Orchestra under George Szell.

According to the Bratenahl Historical Society, Szell believed that had Gross chosen to devote himself to music, he could have been concertmaster of any orchestra in the country.

It was extraordinary praise. But Gross, it seems, saw no need to choose between the operating room and the concert stage.

A Violin Called Kiesewetter

In 1938 Jerome married Janet Moss. The couple lived in Bratenahl, on the shore of Lake Erie, in a house on Lake Shore Boulevard.

Then, in 1953, another treasure entered their married life. From the New York firm of Rembert Wurlitzer, Gross acquired a violin by Antonio Stradivari known as the Kiesewetter.

Janet called the instrument “the second Mrs. Gross.”

One can hear in the nickname both family humor and a certain understanding of the place the violin held in her husband’s life.

The Kiesewetter is one of the Cremonese master’s celebrated instruments. It takes its name from a former owner, the German violinist and composer Christoph Gottfried Kiesewetter.



This is what a Stradivarius looks like — though not the Kiesewetter: a 1716 violin in the Museo degli strumenti musicali, Galleria dell'Accademia, Florence. Photo: Francesco Bini, CC BY-SA 4.0, Wikimedia Commons.

Historical accounts of Gross give different dates for it — 1723 and 1731. The specialist Tarisio catalogue places it around 1727.

To Gross, the Stradivarius was more than a rarity of enormous value. As those who knew him recalled, it embodied everything excellent and perfect

in art.

And yet the most interesting thing in this story is neither the price of the violin nor even the name of its maker. In a surgeon's hands lay an instrument that demanded the same precision, discipline and delicacy of movement that the operating room demanded of him.

Father and Son

The Stradivarius was not the only music in the house. In 1955 Gross formed a duo with his son David, a gifted teenage pianist. Father and son made their debut in Severance Chamber Music Hall (today's Reinberger Chamber Music Hall) with the violin sonatas of Brahms.

Three years later the duo played at Harvard, where David was then a student. The reviewer for The Harvard Crimson praised Dr. Gross's solid technique, good intonation and full, resonant tone.

David Gross became a doctor too — a radiologist. The family tradition of "doctor and musician" carried on into another generation.

Music You Can Calculate

But Jerome Gross did not stop at performing.

He became absorbed in the system of musical composition devised by the Russian émigré Joseph Schillinger — a composer and theorist who set out to explore the laws of music through mathematics.

Schillinger developed methods for building rhythm, melody, harmony and musical form. George Gershwin was among the well-known American musicians who studied his ideas.

And here a remarkable archival find awaits us.

The library of Berklee College of Music in Boston holds the Jerome Gross and Bert Henry Papers on the Schillinger System, 1940–1957.

This is not a passing mention of Gross in someone's memoirs. The collection includes his coursework, his exercises in music theory and his correspondence with Schillinger. There is a 1942 letter in which Frances Schillinger, the composer's wife, confirms that the course has been paid in full. And in letters written a month before Schillinger's death, she tells of his illness and thanks Dr. Gross for his visit.

Picture a man who operates on patients by day, rehearses violin repertoire in the evening, and then works through the mathematical patterns of counterpoint.

The archive supports a more serious conclusion as well: Gross did not treat music as the pastime of a talented amateur. He wanted to understand how it was built as deeply as he understood the human body.

Galina, Slava and Dr. Gross

In November 1965 Galina Vishnevskaya came to Cleveland.

She sang with The Cleveland Orchestra at Severance Hall on November 11 and 13. The American press followed the Soviet soprano's tour closely, and the local papers wrote not only about her voice but about her meetings with Clevelanders.

Among the people around Vishnevskaya during that visit, Jerome Gross held a special place.

The newspaper clippings we discovered while preparing our previous issue show him in an entirely unexpected role.

Dr. Gross was her host — Vishnevskaya stayed at his home — and her interpreter.

He had taught himself Russian. His interest in Russian culture had long since grown into friendships with musicians visiting from the Soviet Union, among them David Oistrakh and Mstislav Rostropovich.

Dr. Gross's friend David Oistrakh plays Sergei Rachmaninoff's Vocalise. Rachmaninoff's name will also grace the Garden's future Music Corner. (youtube.com/watch?v=3KJs30BD1es)

On November 12 The Plain Dealer ran Ethel Boros's article on Vishnevskaya's stay in Cleveland. The accompanying photograph shows the singer at the piano in the Gross home, with the doctor beside her.



THE PLAIN DEAL

Soviet Diva H

By ETHEL BOROS

Star of the Bolshoi Opera Theater in Moscow Soviet Union's leading female singer, Galina Vishn who is making her first appearance with the Orchestra this week, is not the least bit tempe

Miss Vishnevskaya is a small, slightly plu feminine woman—quite pretty and warmly hum pink and white complexion neither needs no makeup.

In an interview at Severance Hall, with Cl violinist-surgeon, Dr. Jerome Gross, acting as int Miss Vishnevskaya said her famed cellist husban lav Rostropovich, will join her here tomorrow ni performed in Pittsburgh this week and will play i next week. This is their third U.S. tour.

MISS VISHNEVSKAYA has beautiful tapering wears pearlescent nail polish and a plain gold band next to a huge diamond solitaire, which she very old Russian diamond and was a gift from band.

When Dr. Gross left the room to answer a ph Miss Vishnevskaya was able to continue the con in halting but acceptable English. She spoke of dren, Olga, 10, and Elena, 7, who are receiving a education in a special school.

She and her husband will join the children in for the New Year celebration (Jan. 1-10) when the have a vacation. There will be presents and a huge stockings for the children. The holiday isn' Christmas, she said, and only the old people still c it as a religious holiday.

IN DECEMBER the Rostropoviches will sto London to make recordings. Benjamin Britten has

Soviet soprano Galina Vishnevskaya gets in a bit of practice at the home of her Cleveland host, Dr. Jerome Gross, 10300 Lake Shore Boulevard, Bratenahl.

Plain Dealer Photo (Richard J. Misch)

The Plain Dealer, November 12, 1965: Ethel Boros, "Soviet Diva Here Warm, Human." Cleveland Public Library.

That same weekend the violinist Igor Oistrakh and his wife were also staying with the Grosses, and Mstislav Rostropovich came to join his wife. November 1965 was an especially crowded month of concerts and travel for him.

The story has an episode that seems almost invented.

During the great New York blackout of November 9, 1965, Rostropovich and Vishnevskaya were at the Warwick Hotel. Their room was on the seventeenth floor. They had to walk down the stairs with their luggage and the cello.

Rostropovich told Gross all about it on the telephone — in Russian and, judging by the newspaper's account, with his sense of humor intact.

But the doctor's ties to these musicians went beyond hospitality.

Wilma Salisbury's biographical essay for the Cleveland Arts Prize records that Gross joined Rostropovich and Vishnevskaya in a recital in Reinberger Chamber Music Hall at Severance Hall.

Unfortunately, we have not yet been able to establish the date of that performance. So, without further documents, we will not tie it to any particular evening in November.

But the fact that they made music together matters a great deal. To these great artists Gross was not only a friend, an interpreter and a generous host. He was their colleague on stage.

And that, perhaps, says more about his musicianship than any glowing adjective could.

We told the full story of Galina Vishnevskaya's visits to Cleveland, with photographs and the newspaper coverage of 1965, in our previous issue, No. 21.

Music as a Public Good

Gross's love of music did not end with his own performances.

He founded the Cleveland Friends of Music, an organization that helped talented young performers, organized concerts and gave scholarships to young artists.

Here another side of his character appears.

A man who had once had to earn his education playing in theater orchestras later helped other young musicians find their way.

We can only guess how many doors his support opened. But the organization's work is a matter of record.

After the Last Concert

Jerome Gross died in February 1969 while visiting relatives in Los Angeles. He was 64.

That same year the Cleveland Arts Prize honored him posthumously with a Special Citation for Distinguished Service to the Arts.

And the Cleveland Institute of Music established an annual prize in his name — the Dr. Jerome Gross Prize in Violin.

The prize is especially touching in its purpose: it goes to the violin student who has made the most progress during the academic year.

Not necessarily the most famous. Not necessarily the one who has already reached perfection. But the one who has come the furthest.

Perhaps this is the truest memorial to a man who kept practising several hours a day despite his surgical practice, his concerts and countless other obligations.

Gross even wrote his own epitaph in advance. It spoke of a man who did not accomplish all he set out to do, because his goals were too many and too high — but who had a wonderful time trying.

The words reveal the same character as the story of the hospital morgue: a man for whom what he had already achieved was never quite enough.

What remains are his musical manuscripts, memories of his concerts, and his name on a prize at the Cleveland Institute of Music.

And the remarkable story of a surgeon who had two Mrs. Grosses — Janet and the Stradivarius.

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Forty Letters and Thousands of Connections

Boris Vinogradsky: a surgeon who brings people together

In the opening story of this issue, we met Jerome Gross, a surgeon who played a Stradivarius violin and performed on the concert stage. Our second protagonist, Dr. Boris Vinogradsky, is also a surgeon and a passionate lover of classical music. Unlike Gross, he does not play a musical instrument. But he possesses another remarkable talent: bringing people together.

On November 7, 1991 — almost exactly thirty-five years ago — Boris Vinogradsky arrived in Burlington, Vermont. He had left his life in the Soviet Union behind. Ahead lay America, where even an experienced surgeon would have to establish his professional credentials all over again.



The first American years. The T-shirt reads "Burlington — Yaroslavl": the two are sister cities. Photo from the archive of Boris Vinogradsky.



Dr. Boris Vinogradsky. Photo from the archive of Boris Vinogradsky.

The American medical licensing system proved complicated. Preparing for the examinations required special courses, and those courses cost money. A friend lent Boris $3,500 so that he could enroll in a Kaplan preparation program.

Yet even then, his thoughts extended beyond his own professional future.

Dr. Lyuba Vartikovsky sent him a list of approximately forty physicians of Russian origin living in Boston. Boris wrote a letter to each of them. An actual letter, on paper — email had not yet become an everyday means of communication.

Out of those letters gradually emerged an idea that would shape much of his life.

Bringing Together Those Far from Home

In late 1992, Boris began thinking about creating a national organization for Russian-speaking physicians. He chose its name quite deliberately: Russian American Medical Association — RAMA.

Without a hyphen between Russian and American.

As Boris explains, this was not intended to be an organization connecting two countries, but an association of American physicians of Russian origin. These were people beginning new lives, learning to navigate a different medical system, yet retaining their professional knowledge, their language, and their desire to help one another.

Gradually, a board of directors took shape, and the website russiandoctors.org was built with the help of Dr. Dmitry Lozovoy. By 2003, the association had approximately 500 members.

But RAMA's activities soon extended far beyond professional gatherings.

Medicine Without Borders

The association's physicians organized medical missions to Russia and other countries of the former Soviet Union. They worked alongside local colleagues in Yaroslavl, Kemerovo, Leninsk-Kuznetsky, Moscow, St. Petersburg, Tomsk, and Uzbekistan.

Of particular importance was their collaboration with American pediatric cardiac surgeon Dr. Bill Novick, who devoted many years to operating on children with congenital heart defects.

Among Boris's recollections is the story of a boy from Yaroslavl who was brought to Michigan for complex heart surgery.



Dr. Boris Vinogradsky in the operating room. Photo from the archive of Boris Vinogradsky.

Behind such cases lay an enormous amount of organizational work: finding specialists, negotiating with hospitals, arranging travel, and bringing together people willing to help. And, of course, raising the money — finding funding was often the largest part of the work.

All of this required no less persistence than creating the association itself.

And here we see a quality that seems to run throughout Boris Vinogradsky's life: the ability to unite people around a cause that no single person could accomplish alone.

From a Medical Community to the Russian Cultural Garden

In 2011, Boris Vinogradsky, together with Svetlana Stolyarova and Sergio Lebid, co-founded the Russian Cultural Garden organization in Cleveland.

At first glance, surgery and the creation of a cultural garden might seem to have little in common.

Yet here, too, everything began with bringing people together around an idea. Finding like-minded individuals, persuading, negotiating, overcoming obstacles — and gradually turning a vision into reality.

The Russian Cultural Garden became part of the celebrated Cleveland Cultural Gardens, where communities of different national backgrounds share their heritage through art, architecture, and remembrance.

Boris also established the Russian Cultural Garden's Freedom Award. In 2025 it went to Yuri Shevchuk, as we reported in Issue 13 of the Gazette.

For Boris, it was another way to preserve cultural connections while remaining firmly engaged in the present.

Music That Brought Friends Together

Around 2015 or 2016, a small music history discussion group emerged in Cleveland through the initiative of Victoria Kabo, who has curated the Russian literature department at the Cleveland Public Library for many years. It was led by the fine pianist and music scholar Svetlana Bakhmatkova.

Its members gathered to listen to music and discuss composers, their works, and the historical circumstances in which those works were created. Boris was among the group's enthusiastic participants.

The group no longer meets, unfortunately. But the memories remain of evenings when music became an occasion for conversation, discovery, and friendship.

From the Subject of a Story to the Interviewer

In this issue of the Gazette, Boris Vinogradsky takes on yet another role: that of interviewer.

His guest is Dr. Igor Efimov, a scientist whose research explores the electrical processes governing the human heart, and a man whose interests reach well beyond the laboratory.

The two share not only an interest in science and culture, but also a longstanding connection through the Russian-American scientific community.

And now we turn the conversation over to Boris Vinogradsky and his guest, Igor Efimov.

Electrical Tornadoes in the Human Heart

Igor Efimov: from a closed Siberian city to the frontier of American science



Igor Efimov in the laboratory. Photo from the archive of Igor Efimov.

When Igor Efimov was in fifth grade, growing up in Zheleznogorsk, a "closed" city in Siberia, his parents gave him a book of biographies of great scientists. It changed his life. For the first time, he discovered that there were people in the world who shared his fascination with physics and mathematics.

Then came the Krasnoyarsk Summer School, on the banks of the Yenisei River, where he found himself among young people who were just as

passionate about science. And eventually, the Moscow Institute of Physics and Technology — the legendary Phystech he had dreamed of attending.

Today, Igor Efimov is a professor at Northwestern University and director of its Cardiovascular Engineering and Technology Center. His research explores the electrical processes that govern the heartbeat, the mechanisms behind dangerous cardiac arrhythmias, and new approaches to treating heart disease. In 2025 he was one of the leaders of the study in which Northwestern scientists created the world's smallest pacemaker — smaller than a grain of rice. Controlled by pulses of light, it dissolves in the body once it is no longer needed, and it was designed above all for newborns with congenital heart defects. TIME magazine named it one of the Best Inventions of 2025.

He began his independent research career at the Cleveland Clinic in 1994. There, using an optical mapping system he had developed, he investigated a remarkable phenomenon: rotating waves of electrical activity that can behave like miniature tornadoes within the heart muscle. These electrical disturbances can disrupt the heart's coordinated rhythm, sometimes with life-threatening consequences.

Cleveland also holds a special place in his family's history. His son was born here, his daughter graduated from high school here, and his wife earned her Ph.D. at Case Western Reserve University. It was also in Cleveland that Efimov discovered one of the great pleasures of his professional life: teaching and mentoring young scientists.

Our conversation ventures far beyond cardiology. Efimov reflects on scientific discovery and the importance of being wrong, artificial intelligence, intellectual freedom, emigration, his family's remarkable history, and the things that give human life meaning.

But where does music enter the story?

Near the end of the interview, among a series of brief and rather personal questions, Efimov is asked which talent he would most like to possess.

"I would love to be able to play the piano."

The interview was conducted by Dr. Boris Vinogradsky, the subject of our preceding profile and Efimov's fellow member of the Russian-American scientific community.

We invite you to join their conversation.

IGOR EFIMOV, PHD · SCIENTIFIC PROFILE

Current appointment

Professor and Director, Cardiovascular Engineering and Technology (CVET) Center, Northwestern University. The center investigates cardiovascular disease mechanisms and develops therapies, particularly for heart rhythm disorders and bioelectronics.

Education and academic career

- BSc, MSc and PhD — Moscow Institute of Physics and Technology (PhD 1992)
- Postdoctoral research — University of Pittsburgh (1992–1994)
- Cleveland Clinic Foundation — faculty (1994–2000)
- Case Western Reserve University — faculty (2000–2004)
- Washington University in St. Louis — faculty (2004–2015)
- George Washington University — faculty and founding chair of the Department of Biomedical Engineering (2015–2022)
- Northwestern University — faculty (2022–present)

Academic memberships and fellowships

Member, American Academy of Sciences and Letters; Fellow, National Academy of Inventors; American Institute for Medical and Biological Engineering; Heart Rhythm Society; and American Heart Association.

Selected honors and distinctions

- **2025** — Heart Rhythm Society Ralph Lazzara Lectureship Award
- **2022** — International Academy of Cardiovascular Sciences Naranjan Dhalla Award
- **2021** — Heart Rhythm Society Distinguished Scientist Award
- RASA George Gamow Prize
- Astor Visiting Fellowship, University of Oxford
- Washington University Chancellor's Hartwell Prize for Innovative Research
- Doris J. W. Escher Lectureship, Montefiore Medical Center / Albert Einstein College of Medicine
- Walter Lillehei Lectureship, University of Minnesota

His Cleveland years

Efimov began his independent research career at Cleveland Clinic in 1994 and joined Case Western Reserve University in 2000 as Elmer L. Lindseth Associate Professor of Biomedical Engineering. Cleveland was also home to his family for ten years. As he recalls, teaching and mentoring students there became one of the enduring pleasures of his scientific life.

A Conversation with Igor Efimov

Interview by **Dr. Boris Vinogradsky**

> *What inspired you to pursue science, and what discovery are you most proud of?*

When I was in fifth grade in Zheleznogorsk, a remote Siberian “closed” town, my parents gave me a book that changed my life: a collection of biographies of great scientists. It showed me that there were other people who shared my fascination with science and mathematics. At school, I often felt lonely; few of my classmates were interested in physics or biology.

Another turning point came entirely by chance. I learned about the Krasnoyarsk Summer School, organized by students and professors at Krasnoyarsk State University who were passionate about science education. I found myself at a summer camp on the banks of the Yenisei River, surrounded, for the first time, by children my age who loved science as much as I did.

There I also learned about the Moscow Institute of Physics and Technology, known as MIPT or “Phystech,” a legendary institution for physics and mathematics. Several of our instructors were MIPT students, and I dreamed of becoming one of them. Two years later, that dream came true. I went on to receive my bachelor’s, master’s, and doctoral degrees through Phystech.

I am particularly proud of my work on phase singularities induced by virtual electrodes in the heart. Today, the word “singularity” often appears in predictions about artificial intelligence and a technological transformation of humanity. My work concerns a very different, precisely defined physical phenomenon of singularity.

A phase singularity lies at the center of a rotating wave of electrical activity. In the heart, these waves can resemble electrical tornadoes, disrupting the coordinated contractions needed to pump blood. They play an important role in dangerous arrhythmias, including ventricular fibrillation.

Using an advanced optical mapping system I built at the Cleveland Clinic, I observed how an electrical shock could disrupt the heart's normal electrical activity and generate these rotating waves. A key mechanism involves the interaction of an applied electric field with variations in the heart's tissue, including scars. These interactions create regions of electrical polarization — "virtual electrodes" — that can give rise to phase singularities.

More broadly, this work showed how an external field interacting with local differences in an active medium can produce a profound disruption — a singularity — of its behavior.

I sometimes see an analogy with societies: internal polarization, combined with disruptive external forces, can produce devastating instability and war. That is a metaphor, of course, rather than a scientific theory of society.

> *What matters more in science: intelligence, perseverance, intuition, or luck?*

Chance favors the prepared mind. Scientific discovery requires openness to the unexpected and the ability to see familiar facts from a new angle. Intelligence, perseverance, and intuition all matter, but so does recognizing an opportunity when luck presents it. A scientist must be open to serendipity.

Conversely, rigid adherence to tradition or an established paradigm can be one of the greatest obstacles to discovery.

> *Have you ever spent great effort pursuing a hypothesis that turned out to be completely wrong?*

Yes. Being wrong about a hypothesis is a normal part of a scientist's life. Hypotheses exist to be tested, and we must be willing to abandon them when

the evidence demands it.

Unfortunately, the scientific establishment has often treated hypothesis-driven research as a requirement to confirm the original hypothesis. Journals and funding systems tend to reward positive results, while negative findings receive far less attention and are often not even considered for publication.

This creates fertile ground for false discoveries. Researchers may be misled by false-positive results, whether through honest error, selective interpretation, or deliberate misconduct. Others then spend years — and sometimes billions of dollars — trying to develop therapies or technologies based on findings that cannot be reproduced.

Once a reputation is built around a theory, abandoning it can become personally difficult. Some scientists defend such claims for decades. In rare but highly publicized cases, investigations uncover fabricated data and lead to the retraction of influential papers.

These failures waste resources, obstruct reliable research, and erode public trust. Science depends on our willingness to accept an unwelcome result, including the discovery that we were wrong.

> *What is the greatest unsolved mystery in your field?*

Bioengineering is full of unanswered questions. How far can we extend the human lifespan? Is immortality even conceivable? Why do women generally live longer than men?

Can we regenerate damaged hearts or engineer replacement organs? Can we build a bionic organ that combines living tissue with electronics? How do

organs sense their surroundings, process biological information, and adapt to injury?

And as artificial intelligence develops, should we integrate it with our minds — and, potentially, with our sense of identity?

These questions reach beyond engineering into biology, medicine, and philosophy.

> *Is AI going to revolutionize biomedical research and eventually replace scientists?*

AI — and machine learning in particular — has been part of scientific research for decades. I wrote my first neural-network program in the 1980s, hoping to detect the onset of an arrhythmia from an electrocardiogram in real time. It did not work; the computing resources available to me were far too limited. Today, related methods can identify many arrhythmias and extract information from an ECG that may not be apparent to a physician, including estimates of a patient's age and sex.

But biomedical research requires more than analyzing existing data. A physician must examine and care for a living patient. An experimental scientist must interact with the physical world through instruments and measurements. Many major discoveries begin with a new instrument or method that makes something previously inaccessible measurable.

AI will help us design experiments, analyze data, and recognize patterns. Increasingly, it will also work with automated laboratory systems. Yet deciding which questions matter, developing new ways to investigate them, and interpreting results in their biological context will continue to require human judgment and human hands.

I expect AI to transform the work of scientists. Replacing scientists is a much larger claim.

> *What prompted you to leave Russia, and have you ever regretted that decision?*

I left Russia in 1992 because the choice, as I saw it, was to leave science or leave the country. Scientific funding collapsed under Yeltsin's government. My wife, who is also a scientist, and I each earned the equivalent of about six dollars a month. We could not support our family.

I have never regretted that decision. It gave me the opportunity to work in what I consider the strongest scientific culture in the world: the American research community.

Very few of my classmates who remained in Russian science were able to build the careers their talents deserved. Some who left science for business became highly successful. But business was never the life I wanted. I wanted to remain a scientist.

> *What did Soviet or Russian scientific education teach you that American education did not?*

For me, the defining strength of the Moscow Institute of Physics and Technology was its approach to problem-solving. It provided rigorous training in physics, mathematics, programming, and English, but its most valuable lesson was how to approach an unfamiliar scientific problem.

A Phystech graduate left with the confidence that a new field could be learned, and a difficult problem could be broken down and understood.

Over my career, my interests have ranged from genetics and nuclear physics to computer science, cardiac physiology, and bioelectronics. These are very different fields, but the intellectual foundation I acquired at Phystech allowed me to explore and enjoy all of them.

> *Is scientific research truly free from politics, money, professional jealousy, and personal ambition?*

No. Scientists feel the effects of America's political cycles acutely. Together with Anna Krylov and other colleagues, I have written about politicization and counter-politicization in research funding under both Democrats and Republicans.

The ivory towers of elite universities offer little protection when politicians seek to impose their ideologies on education and research. Professional rivalries, personal ambition, and failures of academic leadership can make universities more vulnerable to these pressures.

Science has long benefited from broad public trust and bipartisan support. The erosion of that support threatens America's leadership in science and technology.

> *What is your view on scientific dishonesty, censorship, or political interference in research?*

All three undermine the conditions that make science possible: intellectual honesty, open inquiry, and the freedom to follow evidence wherever it leads.

My colleagues and I have addressed these issues in articles written during both the Biden and Trump administrations. Political interference is

damaging regardless of which party practices it.

Failures of scientific integrity also weaken public trust, particularly when prominent researchers receive substantial funding and accolades for work that later proves unreliable. Meanwhile, expanding academic bureaucracies can burden research with ideological requirements and restrictions.

Science has traditionally relied on criticism, replication, and professional reputation to correct its mistakes. Those mechanisms still matter, but they do not always work as they should. We need serious reflection on how to strengthen them.

> *Russia lost many of its greatest scientific minds through emigration. Can that loss ever be reversed?*

The departure of talented scientists from Russia has a long history. The biologist Ilya Mechnikov left before the revolution. Here in Chicago, I live on the very site where the Russian chemist Vladimir Ipatieff lived from 1930 to 1952. He conducted research and taught at Northwestern University. Almost a century later, I am doing the same.

Talented people will continue to be born everywhere, including Russia. The difficult task is building institutions in which their talent can flourish. I tried to help strengthen Russian science during the 2000s and 2010s and co-founded the Russian American Science Association (RASA) to help build democratic scientific institutions in Russia.



Igor Efimov at Don State Technical University, Rostov-on-Don. Photo from the archive of Igor Efimov.

The current regime of the Russian Federation destroyed these efforts, named me a “foreign agent,” and declared RASA an “undesirable organization.” That experience left me deeply skeptical about the possibility of restoring institutions damaged under Yeltsin and Putin in my lifetime.

Germany’s experience illustrates how lasting such damage can be. The destruction of its scientific community under Hitler ended an era of extraordinary leadership. Rebuilding laboratories is one thing; rebuilding a culture of intellectual freedom and trust is another.

I do not expect to see Russia return to the world’s top ten scientific nations in my lifetime.

> *Do you consider yourself a Russian scientist, an American scientist, or simply a scientist?*

Science belongs to humanity, not to any one country. Its centers of leadership have shifted over the centuries, and its progress has always depended on ideas crossing borders.

I collaborate with researchers around the world and teach students from many countries. In that sense, I am simply a scientist. I am also an American citizen, grateful for the opportunities this country has given me.

> *Are Nobel Prizes and other prestigious awards always given to those who genuinely deserve them?*

The more difficult question is whether everyone who deserves recognition receives it.

The Nobel Prize was established in an era when a major discovery could more readily be associated with an individual scientist. Even then, research depended on collaborators and trainees. Today, science is even more clearly a team effort.

Limiting a scientific Nobel Prize to three people inevitably leaves out researchers who may have made equally important contributions. Those selected may fully deserve the honor, while others deserve it just as much.

Awards recognize achievement, but they cannot provide a complete or perfectly fair account of how discovery happens.

> *What has your scientific career taught you about human nature, mortality, and the meaning of life?*

Reading the biographies and writings of scientists from past centuries has taught me how little human nature has changed. We are driven by many of the same passions, failings, and impulses toward kindness as people who lived five hundred years ago.

Science has changed the conditions of our lives enormously. Applied through medicine, it has helped us live longer; applied through technology, it has improved our quality of life. Yet our fundamental human concerns remain familiar.

My own experience has taught me to find meaning and joy in everyday life: working on a scientific problem, teaching students, developing a technology that might save lives, and talking with my children and grandchildren.

> *If you could start your life over, would you choose the same career and the same country?*

In 1900, my great-grandfather Grigory Tololo moved his family from the Poltava region to Siberia, where the Russian government offered land to settlers. He could have chosen America, as many Ukrainians did at the time. Instead, he chose Siberia.

That decision shaped the lives of several generations of my family. My grandmother and mother endured collectivization, hunger, and backbreaking labor. Several family members died during the Second World War, which I see as a catastrophe brought about by Hitler and Stalin. I was born and raised in a city surrounded by barbed wire and built by Gulag prisoners.

By moving to America, I changed the course of that family history. I wanted my children and grandchildren to have a future free from another century of rule by the KGB and its successors.

Yes, I would choose science again, and I feel fortunate to live and conduct my research in the United States.

A FEW MORE QUESTIONS

What is your idea of perfect happiness?

Seeing my three grandsons more often.

What is your greatest extravagance?

Good Bordeaux wine — and trips to Bordeaux, which I have enjoyed for the past fifteen years.

What is it that you most dislike?

Scientific dishonesty.

Do you have a hero or a role model?

Johannes Kepler is one of my heroes. He lived through the upheavals of the Counter-Reformation, endured the deaths of his children, saw friends killed, and defended his mother against accusations of witchcraft. Despite all this, he formulated the laws of planetary motion — one of the most beautiful achievements in science — which helped lay the foundation for Newton's law of gravitation.

What is your greatest regret?

Not beginning my American scientific career earlier.

Which talent would you most like to have?

I would love to be able to play the piano.

What is the quality you most like in a man?

Being a devoted father and grandfather.

What is the quality you most like in a woman?

Motherhood.

On what occasions will you lie?

I try not to.

If you could change one thing about yourself, what would it be?

I would like to speak more languages.

What do you think about death?

I do not fear it. Without death, there would be no renewal and no room for new generations.

Do you have a motto?

No, I don't.

You can get to know Igor Efimov further on YouTube: on November 3, the channel *I Gryanul Grem* released a long video interview with him (in Russian).

I Gryanul Grem, November 3, 2026. Topics: scientists' ethical choices, science in today's Russia, attempts to extend life, a self-dissolving micro-pacemaker, and artificial intelligence in medicine. (youtube.com/watch?v=pf0uc307euY)



Kuzma Petrov-Vodkin. Mother. 1913. Oil on canvas. State Tretyakov Gallery, Moscow. Public domain.

Asked which quality he most admires in a woman, Igor Efimov answered with a single word: “Motherhood.”

Let Kuzma Petrov-Vodkin’s painting *Mother* illustrate that answer. The artist was born on November 5, 1878, in Khvalynsk on the Volga — 148 years ago on the very day this issue appears.

The New Entry Plaza

The work is finished

The entrance to the Russian Cultural Garden from Martin Luther King Jr. Drive is complete at last. The flowerbeds on either side of the central path are now framed by low retaining walls of gray stone.

The plaza itself, its paving and the walk leading to the bust of Yuri Gagarin are unchanged. The new walls simply wrap the existing beds. But that is exactly what had been missing for years: the Garden now has a clear edge, and its entrance feels whole and ceremonial.



The central path between the new flowerbed walls. Photo: the Gazette.

The project had a long road of approvals. It was endorsed by the board of the Russian Cultural Garden and by the Cleveland Cultural Gardens Federation, and on September 24 it received final approval from the Cleveland Landmarks Commission, as we reported in Issue 17 of the Gazette. Barely six weeks later, the walls are standing.

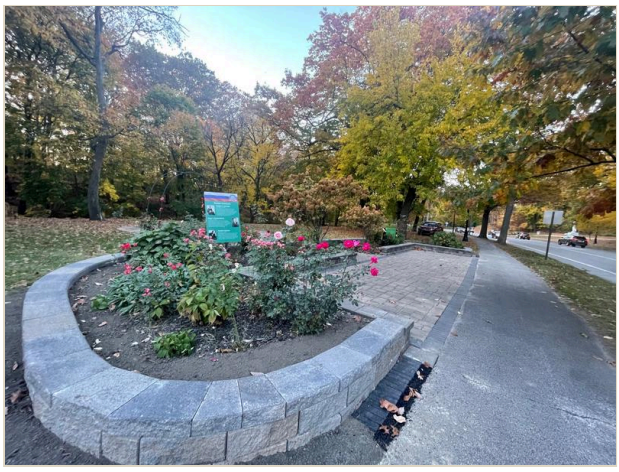
Thank You!

We thank Aurora Landscaping and its owner and director, Manuel Balderas, a longtime friend of the Russian Garden, for superbly coordinated and executed work.

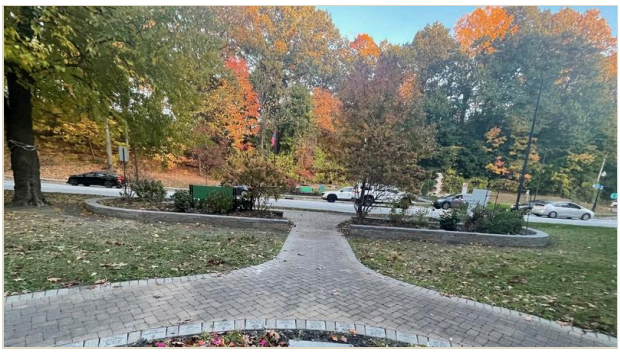
Thank you to every member of the Garden's Board, and to the organization's previous leadership, for the fine idea of completing the ensemble of the Russian Garden's main entrance plaza.

Our deep gratitude to the Cleveland Cultural Gardens Federation and Cuyahoga County for their financial support of the Cultural Gardens' infrastructure projects. Through this program we will receive a $5,000 grant to offset part of the cost of the project.

Special thanks to all our community sponsors: thanks to your support, our Garden keeps growing. There are no large or small gifts — only a sincere wish to support the Garden of Russian culture and its projects. Thank you!



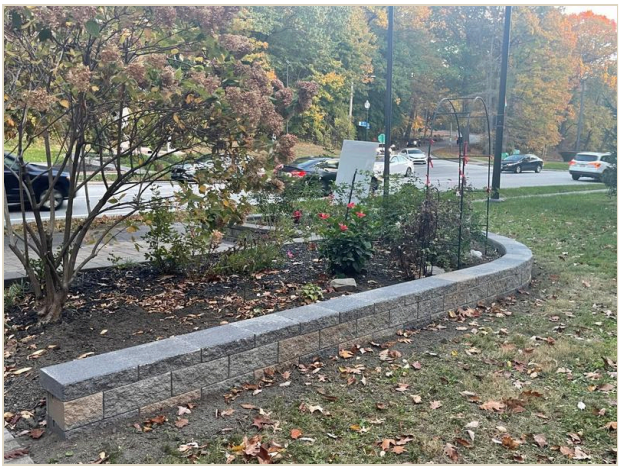
Roses by the "Russian Americans" panel.



The view from the Walk of Fame circle toward the street.



The whole entry plaza.



The arch and roses along Martin Luther King Jr. Drive.

The Russian Cultural Garden's new Entry Plaza, autumn 2026. Photos: the Gazette.

IN THE NEXT ISSUE

DOSTOEVSKY'S 205TH BIRTHDAY

Netochka Nezvanova: A Translation Mystery

November 11 marks 205 years since the birth of Fyodor Dostoevsky. That is why our next issue will appear not on Thursday, as usual, but on Wednesday, November 11 — on the writer's birthday itself. We will tell the remarkable story of his first novel and its new English translation — a true detective story.

The translation follows the original version of *Netochka Nezvanova*, published in 1849 across three issues of *Otechestvennye Zapiski* (*Notes of the Fatherland*). It is the first English translation of that version of the novel, and the first by a native Russian speaker. The translator is our fourth doctor: Anna Kondratova, a doctor of biological sciences and, like Igor Efimov, a graduate of Phystech. The illustrations are by her daughter, Yelena Kondratova. The book is out now and available on Amazon.

And one more coincidence no one could invent: Netochka's stepfather, a violinist convinced he is an unrecognized genius, is named Efimov. So our next issue, too, will not go ahead without a doctor and a violin.

Support the Russian Cultural Garden

The Garden lives thanks to its friends. Your gift helps us care for the Garden, extend the Walk of Fame, build the Rachmaninoff Music Corner and publish the Gazette. Every amount matters: $10, $25 or $100 — each gift helps the Garden grow.

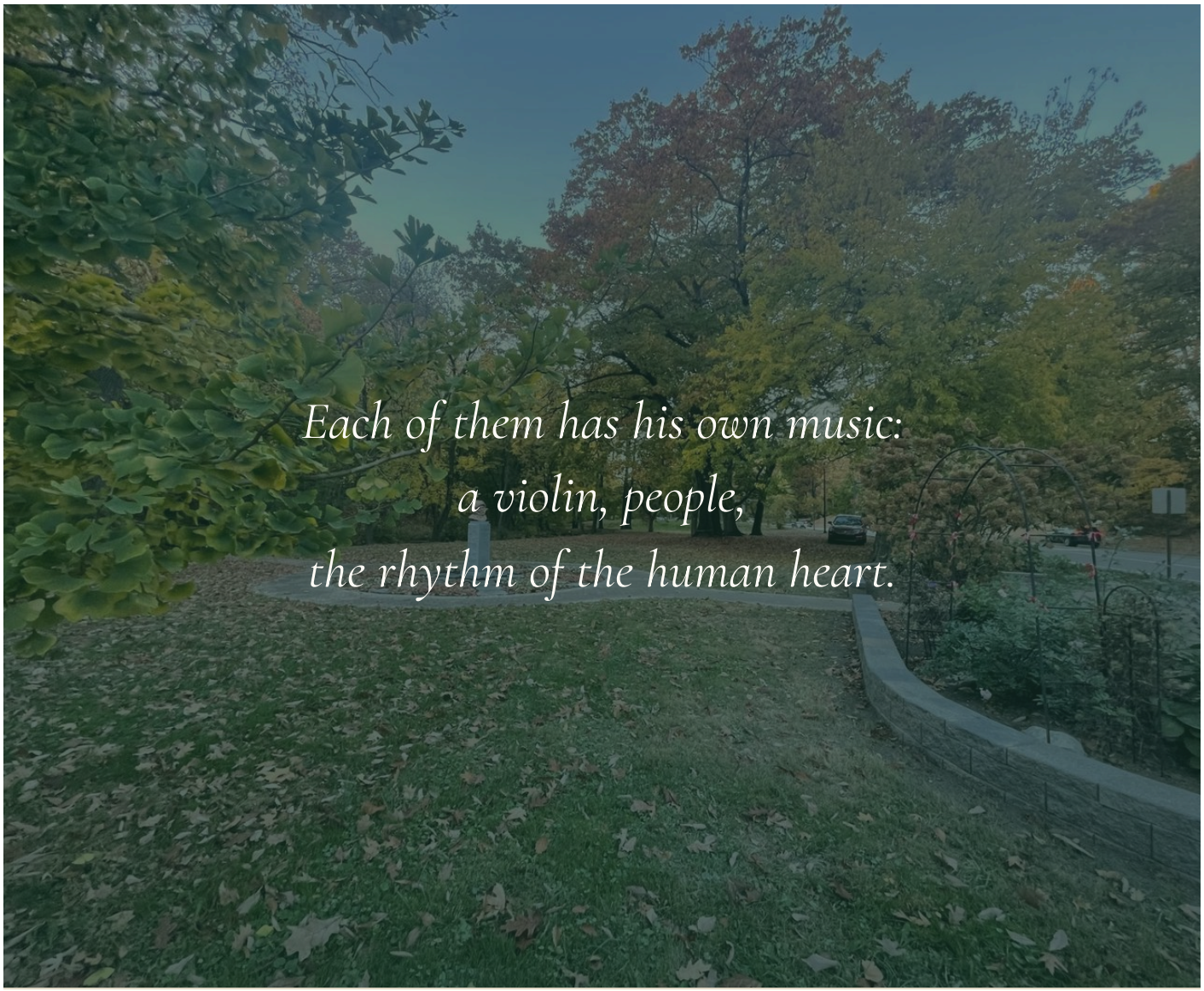
To place a name on the Walk of Fame, the suggested gift is **$250**. Sponsors are listed at RussianGarden.org. A gift may be made in honor or in memory of someone dear to you.



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Russian Cultural Gardens



RUSSIAN Cultural Garden

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The Russian Garden Gazette is the digital journal of the Russian Cultural Garden, Cleveland — a permanent record of the Garden's life for everyone who has ever called it their own.

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Edited by Svetlana Stolyarova.

Cover, divider and closing photographs by the Gazette. Photograph of Dr. Jerome Gross and the 1965 newspaper clipping courtesy of Cleveland Public Library. Photographs of Boris Vinogradsky from his archive. Photographs of Igor Efimov from the archive of Igor Efimov. Stradivari violin of 1716: photo by Francesco Bini, CC BY-SA 4.0. K. Petrov-Vodkin, *Mother* (1913): State Tretyakov Gallery, public domain.

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