

Soviet dissidents (2)

Keeping the flame alight

Robert Adelstein participated in the Moscow Seminar earlier this year. Here he describes his experience

"THE West is serving as a witness to our scientific death. This is the whole point of the Soviet policy, to doom us forever as scientists". The speaker was Mark Azbel, head of the best known Moscow Seminar of dissident scientists. The words were the emotional highpoint of an impassioned closing speech delivered earlier this year during an extraordinary session of the seminar. For five days Hershel Markovitz, a Professor of mechanics and polymer science, and I, a biochemist, shared in the science, thoughts and experiences of the seminar members.

We had arrived in Moscow six days earlier not only to participate in the Moscow Seminar, but more important, to express the continuing interest of western scientists in their less fortunate colleagues. Any prior doubts we had about the impact of a visit by two relatively unknown scientists were quickly dispelled by the overwhelming reception we received. In honour of our arrival it was decided to hold a 'symposium' during which we would deliver three papers each and the Russian scientists would contribute ten of their own. We would meet every day for 3-4 hours of formal science followed by informal discussions about the status and problems of dissidents.

The Moscow Seminar on Collective Phenomenon, as it is officially known, convenes every Sunday at 12 noon in the sparsely furnished apartment of Mark Azbel. (It is one of six different seminars of dissident scientists convening in Moscow at present.) It comprises approximately 30 scientists drawn from various disciplines: physics, mathematics, cybernetics, electrochemistry, biophysics and molecular biology. But despite their differences in training the scientists all share one common attribute—they have applied for an exit visa to Israel and the visa has been refused. They are *refusniks*.

With very few exceptions *refusniks* are fired from their jobs and forced to eke out a living either by tutoring privately or by securing menial, non-scientific work. They are denied access not only to laboratories, but also to libraries, where their names are removed from published works, and where the books they have written are removed from the shelves. Reference by Soviet scientists to their published works is forbidden. They are denied official permission to publish scientific

papers in the Soviet Union or to mail them abroad to foreign journals (though papers can, of course, be smuggled out). Incoming mail, particularly from abroad, is interrupted. Telephones are often disconnected. Attendance at scientific meetings at home or abroad is forbidden. And *refusniks* are often ostracised by former colleagues and harassed by the KGB. The price of applying for an exit visa is high enough to discourage many would be emigrants.

Yet occasionally, in a pattern that defies discernment, a *refusnik* is released. My first visit to the Moscow Seminar had been in August 1972, the year it was first organised by 15 scientists because of "an urgent fear that we would lose our scientific standing, together with the loss of our employment". The words were spoken by Alexander Voronel, at whose apartment the seminar was convened. Three years after applying for his visa, Voronel was permitted to emigrate and is now a Professor of Physics at Tel Aviv University in Israel.

I remember sitting in Voronel's apartment with Benjamin Levich—a *refusnik*, a corresponding member of the Soviet Academy of Science, and a world-renowned electrochemist—together with his two sons Alexi and Yevgeny. His sons now live in Israel—though Yevgeny, a physicist, was incarcerated for a year in an Arctic Circle prison camp before being granted a visa. But their father and mother still await visas, despite Soviet promises to release them in October 1975.

My latest visit, in late winter, started on a Friday in a Moscow still blanketed with snow. My arrival with Hershel Markowitz, earlier in the day, was uneventful except for an extremely thorough search of our luggage at customs. Interestingly, the only reading matter which aroused enough curiosity to require further perusal by a higher official was not a month's supply of *Nature* and *Science* along with assorted scientific texts, but a Moscow guide book published in 1974 in the USA. It was our sole encounter with Soviet officialdom.

Later that night I journeyed by subway to the apartment of Irene and Victor Brailowsky—she a mathematician and he a cyberneticist—both of whom are members of the seminar. Arrangements were made to notify the seminar of our arrival (no easy task



Victor Brailowsky, harassed and threatened

since telephone communication was not possible) and to meet on Sunday for the trip to Azbel's apartment, which is located on another side of the sprawling city.

Mark Azbel greeted us enthusiastically on our arrival at his apartment. The balding, red-haired leader of the group looks considerably older than his 43 years. His whole manner reflects warmth and a certain dynamic intensity which seems to inspire the group whether discussing science or politics. After our introduction to the group—most in their 30s and 40s and much younger than I had imagined, we were joined by Benjamin Levich. A schedule for the 'symposium' was quickly drawn up, it being agreed to meet in Azbel's apartment every evening at six o'clock with the exception of Wednesday, when we would meet at Levich's. This would allow us to meet with some physical chemists who only attended Levich's Wednesday seminar, and with Alexander Lerner, like Brailowsky a *refusnik* cyberneticist. In one of the best examples of how international co-operation among scientists can force the Soviets to alter their policy, Lerner was permitted to attend an international meeting in Tbilisi, USSR, in August 1975, after western scientists threatened to boycott the conference.

The seminar on Sunday was brought to order by Azbel, raising his voice in a manner that brought to mind Moses at the Red Sea: "Yehudim Sheket"—literally, "Jews be quiet" (I have the impression that those are the only two Hebrew words he knows). Together, we covered a wide range of topics. Hershel Markowitz dealt with polymer rheology as well as with linear and non-linear viscoelasticity. I dealt with contractile proteins in muscle and non-muscle cells. Azbel discussed the decoding of DNA; Levich, charge transfer reactions in

solution; Victor Brailowsky, an algorithmic approach to diagnostic and prognostic medicine; Felix Lerner, electromicroscopy of muscle phosphorylase; and Edward Trifinov some biological consequences of clustering of pyrimidine photodimers in DNA. All of the lectures were presented in English, and translated into Russian for five or six seminar members who did not understand.

Trifinov, a 39-year-old survivor of the World War II blockade of Leningrad, whose father died in a Stalin camp, teaches his own course in molecular biology attended by the children of dissident scientists, among others. His first lecture coincided with the third day of the symposium, and he was terribly excited when I presented him with my last minute purchase, a new edition of Watson's *Molecular Biology of the Gene*.

At the conclusion of our first lecture, Azbel presented Hershel Markowitz and me with commemorative pins labelled with the initials MSCP—Moscow Seminar on Collective Phenomenon. The pins, awarded to all seminar lecturers, contain two lines symbolising uncoiled DNA and a balance—which Azbel pointed out as the "scales of justice".

Each evening when the scientific seminar was concluded, we gathered around a table for a snack, usually consisting of bread, cheese and fish, and the informal seminar commenced. Next to talking science, we spent most of our time discussing the plight of the dissidents, particularly why they had applied to leave, and what scientists in other countries could do to help. The two most frequently cited reasons for leaving were antisemitism and the corruption of scientific research by politics.

According to the members of the seminar, anti-semitism has become a sanctioned policy of the Soviet Government, manifested in the systematic exclusion of Jews from the better universities such as Moscow State. Moreover, Jews are being denied access to many professions so effectively that Alexander Lerner, who before his dismissal occupied an extremely important position, told me he applied to leave because "there is no future here for my children".

As scientists, Jews find the situation in the Soviet Union intolerable because scientific research is so enmeshed in politics. Promotion, or even survival in one position, requires constant political clearance, which in turn requires scientists to advocate political positions and sign political statements that they completely disagree with or know to be patently false.

So how can other scientists help? The seminar members stressed several possibilities. First, continued pressure must be maintained on the Soviet auth-

orities to allow free emigration; second western scientists should refuse to deal with Soviet scientists known to be instrumental in having dissident colleagues fired (a partial list of names is available); third, scientists, particularly members of official delegations, should visit the seminar and other dissident scientists (such visits, in the opinion of the seminar members, are instrumental in protecting dissident scientists from harassment by the KGB).

After meeting and eating with members of the Moscow Seminar for five days, Hershel Markowitz and I came away with the impression that they are indeed dying from a professional point of view. This isolation, as pointed out by Benjamin Levich, is particularly devastating for the younger scientists, whose careers and development demand constant work and access to recent publications. (Some of the work presented to us at the seminar was carried in 1971.) But despite their dire situation, they remain committed to their cause, and hopeful that help will come from scientific colleagues in other countries.

At an impromptu banquet held on the night before our departure, Hershel Markowitz and I augmented the usual diet with a chocolate cake, the lucky result of joining one of the many lines that suddenly form on Moscow sidewalks. The 'party' was tempered for me by two things. The first was a feeling of unreality brought on by the clash between a strong sense of identification with my dissident friends on Thursday night and the knowledge that on Friday afternoon I would be able to stop by my own laboratory to check on the latest results.

The second was Azbel's closing address. Besides warning of the potential scientific demise of dissidents, he pointed out that "although most Russian scientists are resigned to restrictions on their scientific freedom, for the dissident scientists this situation is intolerable. The dissidents would rather trade their prestige and, if necessary, their careers, for freedom. In this sense all scientists who apply to leave the Soviet Union must be understood as fighters for the freedom of conscience".

● Six months after my departure from Moscow little has happened to alter the status of the seminar members. Benjamin Fain, one of the few seminar scientists still working during my visit, has been fired. Several other members, including Azbel, Levich and Viktor Brailowsky have been harassed and threatened by the KGB, in an effort to get the seminar to disband. But still the meetings continue, soliciting visits from western scientists, among them the members of official delegations.

One month ago I received a letter smuggled out of the Soviet Union from Viktor Brailowsky. He and his two children have been granted permission to leave, but as often occurs there is a catch. Irene, his wife, is still refused permission—and the family will not leave without her. In his letter he appealed for scientists to send "letters, telegrams and telephone calls (the last are helpful) to R. V. Khochlov, Rector of Moscow State University", asking that she be permitted to emigrate together with her family.

Enclosed with Brailowsky's letter was a letter from another refusenik, German A. Shapiro, an endocrinologist and a former Assistant Professor at the Institute of Biophysics in Moscow. Discharged after applying for a visa in 1972, he now works as an ambulance attendant. The official reason for denying Shapiro permission to emigrate is that he had treated "patients who might know state secrets".

Two incidents illustrate that what at times appears to be a ludicrous situation, actually involves life and death. Tanya Levich has recently suffered a heart attack. Three years ago when the Soviet Government sent her son, Yevgeny, to a prison camp in the Arctic Circle, one of the reasons given for not letting Benjamin Levich emigrate was that it would be cruel to break up the family (since Yevgeny was obviously not free to leave the country). Now, having allowed Yevgeny and his brother out, the Soviets seem intent on making sure that Benjamin and Tanya never see their sons (and grandchildren) again.

The second incident involves another letter delivered by 'special courier'. While I was in Moscow, Alexander Lerner, knowing I had training in cardiology, showed me some electrocardiograms taken on Yefim Davidovitch. Davidovitch was a much decorated World War II hero who chose to sacrifice his career in an effort to emigrate to Israel. He was, however, quite ill, and clearly had heart disease. His friends, including Lerner, were concerned that he might not survive the difficult life imposed on refuseniks (his phone had been disconnected and he had been refused treatment by certain doctors and hospitals). After inspecting the cardiogram, I suggested that letters to some high Soviet health officials might be helpful in gaining his release on medical and humane grounds. I asked that a copy of his medical record be forwarded to my laboratory so that I and others could write on my return. Approximately two months after I returned, a detailed report on his medical history and physical examination arrived. Unfortunately, Yefim Davidovitch had died two weeks earlier. □