“People Should Contact by Their Positive Poles . . .”

On behalf of the Journal, I asked Garri Izrailevich Abelev’s colleagues, disciples, and coworkers to describe in short Abelev’s style in research and research management. It was an improvisation, yet the interviewees were virtually unanimous.

Galina Isaakovna Deichman:
—A characteristic feature of Abelev is his interest in history, not only in general, but especially the history of science and the history of a problem or discovery. Abelev seeks to trace the logical development, the reason for changing the paradigm, and the origins of the new paradigm. The same approach is inculcated in students. Any Abelev’s lecture includes the history of the problem, and he prepares every weekday for the next lecture to be read in Saturday. Abelev’s friends advised him to publish the course of lectures that he has been reading and continually revising for more than three decades. Abelev always agrees that he “indeed ought to,” but he cannot find the time. His course of lectures is very popular, attended by students from the departments having no special course in immunology, professors, and researchers, not all of them working at the university. Abelev likes his students, especially if they show interest in the subject and ask him difficult questions. Many of Abelev’s students had no background in biology at all when they first visited his lectures; for some of them, Abelev’s lectures became a turning point in their education and entire life. One of the favorite Abelev’s students is Ruslan Medzhitov, who is now a well-known American scientist. Medzhitov moved to the United States ten years ago and has made a brilliant scientific career there. He publishes his studies in the Cell, Nature, and other leading journals. Medzhitov recently visited Moscow State University and read a lecture in the framework of the course organized by S.A. Nedospasov at the Faculty of Biology. We attended this lecture and heard Medzhitov saying in the beginning that he owes Abelev his choosing the specialty. Medzhitov used to face serious difficulties, because he, as far as I know, was a physicist by education, and he was merely interested in biology. His approach to the science was a little too theoretical, which caused problems when he defended his diploma and, afterwards, candidate dissertation. Abelev supported his student in every way he could; however, Medzhitov had no house or home or residence permit in Moscow . . . . Nothing could be done for Medzhitov, however talented he was, to stay and work here, and he had to leave, with excellent references, for the United States to work under the supervision of Auld. Medzhitov was highly appreciated in the United States and, a year ago, reached an independent position in biology. He is very impressive both as a personality and as a specialist. He was a pure theoretician in Russia but has now become an experimenter and publishes brilliant experimental studies.

Let me give another example. A few days before I began this article, a work was published where the author absolutely unknown to us described the entire history of the study of α-fetoprotein, from the very moment of its discovery, and how it all went, on. This was most extraordinarily, because all this began 40 years ago! The author gathered all documents and publications, so that the entire course of studies was described almost without mistakes. Even a picture of wells in agar, which nobody uses now but which were used to make the discovery, were presented. Abelev did not know the author, and he was absolutely happy to see the article in a special journal.1

Abelev’s research style is peculiar. He believes that research should be accompanied by failures and sometimes lead to dead alleys, which are to be contemplated and understood rather than feared. Most importantly, Abelev is convinced that the dead alleys where everyone who tries to move on independently inevitably finds oneself from time to time, i.e., points of crisis, are generally useful for work. A researcher must not ignore even the smallest discrepancy between the result that was expected when planning the experiment and that actually obtained: the very essence of the problem may be revealed here. Such is his style that the researcher Abelev is never in a hurry, never spares oneself, and gradually, trying different approaches, nears the solution of the task he set himself. However, once having decided that the question is put in the right way, Abelev is steadfast in its solution. Abelev prefers not to use standard, generally accepted protocols. Instead, he, on the one hand, develops a new method for each particular task and, on the other hand, tries to decipher the mechanism of the phenomenon, process, or reaction, as was the case, e.g., with isotachophoresis. This is a fine, beautiful method offering lots of advantages; and we can now use it because its mechanism was analyzed and understood in every detail. This is an unusual attitude to research methods. Most of us merely use a method for

our purposes, not trying to perfect it; if the method does not yield the expected result, we try another. Abelev himself sometimes says that a method is all he seeks for, but this is not so. For him, what matters is always a problem, which he wants to solve using his own method, which he infinitely modifies and perfects according to the purpose of the study.

Abelev’s style of research management is indeed utterly uncommon. He never puts tasks to his juniors—his method of solving a problem or a laboratory task is to discuss in detail the possibilities of solving the task and, which is perhaps equally important, to explain the junior researcher how important is the work the latter is engaged in. All this is told both at conferences and privately. This is Abelev’s managerial style: to explain the essence of the problem, rather than to assign tasks. Abelev reads and studies a lot, many hours a day and every day. If a researcher proposes a new solution, modification, approach, or idea, and Abelev finds it interesting, he accepts the idea willingly and without jealousy.

How do we compare Lev Aleksandrovich Zilber and Abelev? A teacher and a student? A chief and a subordinate? Zilber’s character is of quite a different type. Zilber is authoritarian, whereas Abelev is far from that. Zilber is a commander pursuing a goal; he is always in the saddle and is very active. Despite all the differences in temperament and attitude to work, Zilber managed to understand Abelev and highly appreciated his “authenticity.” Zilber had plans that he was unable to implement for a long time, and he hurried. In addition, he was still a person from the preceding generation, when all scientific plans were grandiose, which was a custom not only in the Soviet Union, but all over the world. We witnessed the development of the famous Special Cancer Program in the United States in the mid-1960s. There was a long “papyrus” on which the authors of the program showed its stages: here, we isolate the virus of human cancer, reproduce it, construct a model, create the vaccine, begin immunization, and free the humankind from cancer. The whole project failed, which was just another evidence that planned economy is impracticable in fundamental science, but the Congress of the United States allocated a huge sum of money for it. Our managers of science also understood that, and quite straightforwardly. The American money yielded substantial results, but these were somewhat different from what was expected. Abelev was probably the first to declare openly that a discovery was unpredictable, which contradicted the official opinion of the Department of Science of the Central Committee of the Communist Party of the Soviet Union, as well as all heads of research institutes.

Eleonora Rubenovna Karamova:

—Abelev’s style was absolutely democratic. I came from Central Asia, without an official assign-

ment, and with a medical education at that. I read the book by Zilber and Abelev2 and tried to master some of the methods on the spot. All was too complicated, instruments, if any, were only available on the seniors’ permission (i.e., practically unavailable), and when I asked them how they did it, the answer was, “It’s a secret … .” I came to Moscow. Do you know how newly arriving provincials are met in the capital? Yet I found myself where I did not dare to. I meet an abso-

lute openness and kindness; every instrument and every explanation about the methods used were at my disposal. No pressure, everyone is free to sail, so to speak, but is always offered help if begins to sink. I met an immense tolerance, kindness, and generosity.

What is Abelev’s managerial style? First of all, Abelev is an ardent researcher himself and inspires others. He does not interfere in others’ manner of working or constrain anyone’s self-expression. Everyone who remains “silent” for a while will sooner or later find one’s own way of research; Abelev understands that not all can show their faculties at once and shows himself an enormous patience. When he helps, he sees everyone’s particular assets and encourages everyone. He gives everyone an opportunity to show one’s talents and inclinations and is never disgruntled if there are no results for a long time. There are no, and never have been, specially organized groups in the laboratory. The groups form by themselves. Research teams change, and researchers change teams, but there is no administering. There are no conflicts, gossip, or squabbles, which always largely depends on the leader. The saying is true: “Like master, like man.” All are kind, there are no enemies, and the maintenance staff is friendly. Everyone who does one’s work well, be it sweeping the floor or mending the instruments, is esteemed, which is rarely to be seen elsewhere (an ostentatiously democratic air masking a snobbery is much more common).

Abelev has taught us to work together. Conferences have always been interesting, interested, and open; therefore, we are always well informed about one another’s studies. We enjoy a true collectivism, when nobody measures who has done more of a work and who has done less. Nobody takes offence or says, “I am always doing all the work, and you … .” Everyone tries to do one’s best, knowing that what one does is for the others as well. Abelev himself is the European culture and up-to-date science incarnate. He is a connoisseur of history, painting, and music, and an extremely interesting personality!

Tat’iana Denisovna Rudinskaya:

—Abelev makes all around him feel that all that is good in them is needed. Everyone has faults, and they manifest themselves under other conditions favoring

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