

Professor G Laziuk

Personal Details

Name	G Laziuk
Dates	-
Place of Birth	Minsk, Belarus
Main work places	Minsk, Belarus
Principal field of work	Teratology

Short biography

Professor G Laziuk trained initially in Paediatric Pathology, with a special interest in congenital malformations. He then focused on genetics and established a malformation register which included the regions later affected by the Chernobyl disaster, his experiences of this being included in the interview.

Interview

Recorded interview made	Yes
Interviewer	Peter Harper
Date of Interview	26/05/2005
Edited transcript available	See Below

PH = Interviewer (Peter Harper)

GL = G Laziuk

Professor Nick Yankowsky, Moscow, kindly acted as translator for this interview, which explains why it shifts between the first and third person. The interview was made under difficult circumstances and it was not possible to obtain corrections from Professor Laziuk. It is included in the series partly on account of the first-hand experience related of the Chernobyl disaster.

PH May I first ask, how did you come to work in genetics in the first place?

GL I studied 7 years working in genetics. Before that I was working as a pathologist and an anatomist, just for children. After getting my PhD I started to be interested in genetics. I have two steps, one PhD, another one is a doctor of science and the doctor of science degree was written on chromosome abnormalities. Morphology of chromosome diseases is the title of the thesis.

PH May I ask what year was that?

GL 30 Years ago. 1975.

PH So when you began to work in genetics it was already permissible to work in genetics?

GL No problems at that time. The problems were in another field. I was asked why I want to work in genetics. "What do you need it for? You are a great pathological anatomist" At that time genetics was still called "a whore from capitalist side, capitalist countries.". Pathology and anatomy is always a piece of bread for you. And genetics, no one knows what.

PH Was there some legacy against genetics in your country from the Lysenko years?

GL No such kind of thing. Officially no legislation in that field. It was unofficial suppression to people in science, but it stopped in 1965. At least no one disturbed me working in the Institute of Genetics. Furthermore, at that time the Minister of Health was a very good guy for looking ahead. He was a scientist beside which [unclear]. And a good academician and he supported genetics. In medical genetic field not one specialist existed at that time, so Professor Laziuk was the first to study the field in that country. [the interpreter comments that he himself did not know that]

PH So how was he able to learn any basic genetics?

GL From textbooks, from teratology,

PH Was contact allowed with teratologists from western countries?

GL Officially yes, but it was practically very difficult. Full of obstacles. At that time in Moscow, medical genetics started as a field of education, but not in Belarussia. And as a professional teratologist I came here to see how genetics, there was a course for genetics for students. When he appeared to learn this field people here asked him to be a teacher

in it. So some lectures he was as a student and some lectures as a lecturer. Not just a teratologist, and pathological embryology was the most interesting. How the threshold is formed. What does the stage two do, and up to now it is still interesting for me. Collection of embryos at his institute is forty seven thousand kept.

[Translator: Is it physical stuff or computer description?]

GL It's samples and description.

PH May I ask who were the main links, the people he had contact with at that time?

GL Bochkov. Ginter appeared later. Too young then of course.

PH Were there teratologists also in Moscow at that time?

GL No, only in Lwow, which is over the border with Poland. Professor Dyban.

PH Dyban. Is this the same Dyban who later worked with Baranov?

GL Yes.

PH Could he tell me again the subject of his thesis?

[Translator: Do you mean his PhD or doctorate?]

PH Well whichever began in teratology or genetics?

GL The reasons of embryo malformation was his PhD. And for the doctorate degree was Morphology of chromosome abnormalities and diseases. And some of those chromosomal diseases in the Soviet Union were first described by Professor Laziuk. In 1973 or 74 there was a review of his own work in the field and review of previous work. Fourteen cases, including families with Patau syndrome, were described. Patau syndrome was the first.

PH Which year was a chromosome laboratory started in his unit in Minsk?

GL 1973. It was small. Two people of scientific personnel and one technical. And there was no phytohemagglutinin available at that time. It was under construction at the med school (?). It was cell culture, cell division chromosome ---- [?] ----- tissue. It was much more difficult than now and much more expensive. But it was the only way to do it. And first karyotype described in Belorussia was described by Professor Laziuk.

PH Was this a patient karyotype or was it a normal karyotype?

GL Normal.

PH His own?

GL No no, it wasn't his own. It was sliced from a thyroid and a muscle and taken during an operation from patient. The thyroid cell culture didn't start for a month, but the muscle it was successful and it started as the material for the first karyotypes at that time.

PH Does he still have a photograph of that first karyotype?

GL Yes, it was of historical interest - I agree. So for sterilisation compaction was not quite good because they were rather short, but it can be counted.

PH Can I ask how did he first become involved with the Chernobyl studies?

GL It was because of history, Professor Laziuk started chromosome abnormalities in populations in 77/78, and so the population study, he was the first, and so had some experience in working with cohorts on ---- [?] ----- . The main problem was that people who work with him, physicians and specialists, they didn't realise what it was what it was for, how to work with it and first of all they need to be kind of structured, initiated, and these problems in logistics was the main, not in size, just to be in contact with those people making the chain from patient to the collection. And the Minister at that time was a neurological surgeon. (Interpreter: You probably understand that because I am trained as biologist so plenty of names in medicine not known in Russian).

PH Yes but say it again. The Minister was working . . . ?

GL The Minister was a surgeon by education, so he first of all understood that and supported that, and it was important to have that understanding and support, that was the message. And the Minister asked is it spread broadly or not in Belarussia?

PH Hypospadias and epispadias. So was the Minister especially interested to see what happened about that?

GL Just to realise what is the scale of the problem, if the problem exist at all, because it wasn't known, was never studied by no one, so the Minister put the simplest question.

PH So is this before Chernobyl or after?

GL It was well before Chernobyl. There is an answer, we need to have an assistant to register it, all the different steps and we need to create a system together to answer those sort of questions. And he mentioned thalidomide problems in Western Europe, and it was put before the Minister ---- [?] ----- to create a system to survey all that. Please prepare a draft of a document about obligatory registration.

PH Obligatory?

GL In 79 the order was issued by the Ministry to create such kind of service and structure, and after that more people were involved. There were three but for that work only. And after that money started for all kind of threats against chemicals; radiation at that time wasn't of importance ----- [?] -----by command. What kind of disease we can recognise. Once again, after the system was created, just roots from positions, some had an idea about genetics, others have no idea about genetics, so they don't understand what you are saying about it. Sometimes yes, sometimes no. We decided to start from nine diseases which were easily recognised without special equipment, to have common ground for all people, roots, monitoring and it was shown today on slides.

PH Was this just live children or was it also fetal abnormality.

GL For us what was important was that the material is readily available and affordable in terms of money. We had a look at 'delivery house'. (Taranslator: I have never used the word) and the control was done on delivery house level and at the hospital level for adults and children. Five delivery houses in Minsk only. Once a week I was in one of them and saw about everything with my own eyes. But 25, it's not called a hospital,

PH Polyclinic?

GL Yes. Polyclinic, 25, so it's not possible to keep a proper eye on all the places. Though we started from delivery houses and primary information was taken from ----- [?] ----- and then some details, then polyclinics were used to go into more detail, and your book was available and was one of the main people at that time there.

PH Thank you, and can I ask how many years after the register was begun, was the Chernobyl disaster?

GL '79 it was properly started, the system, and in '86 Chernobyl happened, so 7 years. At the time of Chernobyl it was 36 people in this monitoring unit before Chernobyl. Monitoring was specialist in there. There were only 3, but 36 was in technical staff and other direction, so genetics was also studied in the unit at that time. So '86.

PH May I ask did this monitoring include the area around Chernobyl as well as Belarussia?

[Translator: Before?]

PH Before the disaster.

GL The whole region, including Chernobyl region, was already covered by the monitoring.

PH So when the disaster happened, how soon was it that they asked you to be involved?

GL It was him who put the problem to the authorities, not the authorities to him. At the beginning of May and it happened later at the ----- [?] ----- Cancer Clinic. On 26 April it happened and early days in May he was ordered there, in 10 days he was already there. Two weeks after the disaster, the Minister was already informed about possible problems and what we need to do to get answers about genetic consequences. There was no information before it, not only in Russia but in the world for such levels of dosage, there was no information on what should be expected and was a very stressful time. In Japan it was high level of dosage, and as a source of radiation it was chronic here and sharp radiation in Japan. Different situation and different consequences and another source of radiation was here.

PH Can I ask, was there accurate information at the time of the disaster on radiation dose.

GL It wasn't correct, and a thing for you to realise is that I explained to the Minister what to expect and the Minister said, write a project, on cytogenetic study of blood samples both from mother and embryo in uterus and start a study in medical abortuses. Not spontaneous but all medical abortuses for social reasons. Such a kind of study was done in Minsk but not in Chernobyl, and it was suggested it start in Chernobyl immediately with samples, several thousand. For 4 years before realised what kind of diseases and abnormalities we can face and what are the frequencies. And their teratogenetic effect should be estimated; it should be taken at the place, at the material in Chernobyl, not at Minsk.

PH Were there very many abortions because people were frightened of radiation in that area?

GL Yes, it is known somehow. Professor Laziuk often asked questions and it is usually a surprise for people abroad, but not a surprise for Professor Laziuk, so what is the difference? At that time even in cities it wasn't used, to use contraceptives.

PH So they used abortions instead of contraceptions.

[Translator. Yes even in cities. I didn't know that.]

GL The figures at the time of the disaster was 160,000 children born per year in Belarus. Abortions were 350,000.

PH So twice as many abortions as births.

[Translator. It is a chance for me to be an interpreter for this kind of information, because it is really surprising.]

GL All that material wasn't checked in any way by geneticists but Professor Lazuik started to collect it for medical purposes - genetics that is.

PH Did you have any information on the frequency of chromosome abnormalities in these abortions before Chernobyl?

GL It was studied, chromosomal abnormalities and . . . the most often types of malformations were just before Chernobyl and chromosomal abnormalities. All figures about malformations were available at Chernobyl were done before it. Twelve thousand abortuses were studied for malformations and chromosomal abnormalities at Chernobyl. Twelve thousand. First of all many people decided that medical abortion is needed because they were afraid of the situation, and second it was recommended to some --[?]- -and all the cases were taken into analysis. It was difficult to arrange transfer, bringing samples from the most dirty areas. The distances, it's 300 plus minus 50 kilometres, and the material should be in really good condition, and to start cell culture from the samples it needs to be really short time. Chemicals and disposables were delivered to delivery houses in the dirty areas and it was taken into culture media. There was a physicist right there to bring them into the media, into Minsk. It was ordered by the republic government to collect the fetuses and it was done in all delivery houses even without supervision. When the medical abortion was done the fetus was placed in a container and kept waiting until people . . . and delivery to Minsk was arranged by all transport means, by the order of the Ministry of the Soviet Republic the decision was done, but at that time Moscow the main, so it was delivered by all transport means, including planes, and buses and trains.

PH So how many years did you continue the study after Chernobyl?

GL The answer is no, not up until now. It was during 10 years. Financial support was stopped after 10 years.

PH And the main changes that he found during these 10 years in the frequency of chromosome abnormalities and related problems?

GL Chromosomal abnormalities were not so many, because just the number of karyotypes prepared was not so many. We studied 3,000 fetuses from Chernobyl area at that time. A few Down's syndrome cases, XO syndrome and other abnormalities in large numbers. Other abnormalities were quite often. The search [unclear] shifted up to three times, depending on the type of abnormalities. (interpreter: It's not chromosome it's malformation)

PH Malformation.

GL It's about malformation, because abnormalities and I said chromosomal abnormalities.

Kidney problems, malformations turned up 2 to 3 times. Anencephaly more often. And it was difficult to work with it, because it was not the whole embryos but some pieces. Curettage. The statistics were hard to score because of that. We would have one hand, so how could we describe, nothing else. How can I score it? Problems with the scoring. And so it was problems of how to arrange that, how to register. And we decided to work only if we had the whole body or all parts, and informative cases the whole body, all 3,000, not just the piece. They are not kept. Information is available but the material has disappeared.

PH What was his personal impression being at the Chernobyl station so soon after. Did it make a very strong personal impression, the scene of this disaster?

GL That time was the most terrible for me. It was panic for all people around and we didn't know anything actually. We were not informed. We were not radiobiologists so it was a new situation. So, the maps were created in three years. At that time no maps about how it was, just. And only in 3 years, in Madrid on a congress, I saw a map for iodine.

PH Iodine. Yes.

GL A Professor from abroad, it was done, not by him. They were working all with closed eyes. So I was a member of the Government Commission for that, should have been the most informed, but I didn't know that, and ordinary people were not aware of anything.

PH Was there panic among the ordinary people living there?

GL Yes, ordinary people were in panic. And practically all villages were visited by him personally.

PH Has he ever written a personal, historical account of this time?

GL It's the first time now!

PH May I suggest that, for Russia and for the whole world, it would be very valuable to write a personal historical account.

[Translator: (long untranslated discussion) Are you going to do it? It depends on time. I believe this investment, sadly that investment in time in this area is critical. There are more important things. It's a unique experience.]

GL The Minister left his position in time and new people appeared, and I wasn't comfortable with these new people in the Ministry. They were not easy to work with. Because this new Minister of Health, they invested many parts of the budget went to sanatoriums and all that kind of stuff, and Professor Laziuk said that it should be to prophylaxis, to realise what has arisen and prevent it, and it wasn't the position of Ministry officials. I understand that it is much more important for them to say 'plenty of sanatoriums'; with prophylaxis nothing happens so they are not working.

PH Just to say, the figures and the statistical data may be all published, but his memories are just as important to record as these figures.

GL So actually, this openly expressed position, that you need to create conditions to protect people from any kind of harm and not to just treat them after for something that has happened, wasn't comfortable for Ministry officials, and Professor Laziuk believes that that was the reason to fire him and he was not the head of the Institute after some period before this finding of the Ministry. (Translator: And that is ridiculous if that is the case.) There were 3 people fired, him and two others who went to the United States immediately. Three main people. That's really a story.

PH Will you thank him very much for sharing his memories, and say it is a very great privilege for me. And I look forward to reading his memoirs.

Interpreter. That is also my personal opinion, and I express it not only from your side but from my side

GL It is hard to say the truth, but it is not possible to say not truth, so that is the moral problem.

PH Thank you