Renata Laxova

Personal Details

Name	Renata Laxova
Dates	Born 15/07/1931
Place of Birth	Czechoslovakia
Main work places	Brno, London, Madison
Principal field of work	Clinical genetics
Short biography	See below

Interview

Recorded interview made	Yes
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Personal Scientific Records

Significant Record set exists	
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Biography

Renata Laxova (born 15th July, 1931)

Renata Laxova (neé Polgar) was born in Brno, Czechoslovakia, but came to Britain with the kindertransport in 1939, returning in 1946. She trained in Medicine at Masaryk University, Brno, taking a PhD in Medical Genetics in 1946. In 1968 she again came to Britain, working initially with Lionel Penrose and then as consultant in Clinical Genetics at the Kennedy Galton Centre.

In 1975 she moved to Madison, Wisconsin, in the Departments of Pediatrics and Medical Genetics, her main work relating to the aetiology of mental retardation, provision of genetic services and training of genetic counsellors. Her publications include around 120 papers, two books and a volume of memoirs (Letter to Alexander, published in English 2001).

INTERVIEW WITH DR RENATA LAXOVA, 24th OCTOBER, 2005

[Renata Laxova's early life is recounted in her autobiographical memoir 'Letter to Alexander'. Cincinatti. Custom Editorial Productions, 2001]

PSH. It's Monday 24 October 2005 and I'm talking with Dr Renata Laxova in the Department of Genetics at Madison, Wisconsin. Renata, can I start with the time when you came to England from Czechoslovakia, and this was 1968?

RL. Yes.

PSH. You were already well experienced by that point in paediatrics and clinical genetics.

RL. Well, I had graduated from medical school in 1956 then stayed home for two years, one and a half years, with my babies, then of necessity actually, because we were not allowed to find our own positions. We were allocated and sent, irrespective of family, husbands, children, and I had one child initially after I graduated and my husband was working, this is just aside but it's interesting. And the place where they sent me was Middle Slovakia, which was a good 100-200 miles from Brno, where I would have to stay and maybe come home once in six weekends or something. Nobody cared and they told me they could have sent me further away, but I didn't really deserve to stay anywhere near, because I was so western orientated etcetera. These committees. So I decided to be rebellious and risked everything and I did not go and we didn't know what would happen. But then I became pregnant, I wrote and told everybody, anyway it's in the book. You can read about it so it's not . . . Anyway that's why I was home for a time with my children. Then I began to volunteer at the hospital if I had a little time as a paediatrician. So I worked as a paediatrician from 1958. It was a teaching hospital, so we had good training. But genetics was still taboo, until probably 1962, when people started talking about building, or organising, establishing a research centre for paediatrics and the question was 'what should one do? What should be the theme of this paediatric centre?' And we thought genetics, because somehow I'd always had an interest and it was part of my rebellion, maybe, against the Government, and I wasn't the only one until two or three of us decided it would be genetics and to our great surprise it was.

PSH. Did you propose this as something called 'genetics' or did it re-label it as something else?

RL. No just Paediatric Research Institute, but the theme was going to be genetics and that became pretty public, but not public the way one thinks here. It wasn't published in newspapers or anything. They were building, renovating a new place, on the grounds of the children's hospital and we decided it would be paediatrics. I mean paediatric genetics or genetics even. Not really paediatric genetics. There was nobody to lead it, so our professor of paediatrics, who was the head of paediatrics in Brno at the University was also interested. I still have his notes. I didn't have Jim's notes [Jim Crow] at the time and he taught genetics to medical students, a little bit, but from '62 and then it was opened in ’63. And the philosophy was, we were going to catch up with the rest of the world, which wasn’t very far along in medical genetics and not go through some of the labour pains. So what we did was twin research and I don’t know if you ever heard of any of this. It was unfortunately lost, but I think it’s unique and if I may mention it. We, in the summer, we closed this centre. They had had an in-patients, 30 beds or 40 beds I think, in-patient unit, which initially had been part of the children’s hospital, but somewhat separate geographically and we closed it to sick kids. We did everything, cleaned out everything and we admitted for 6 weeks of the summer, because it was research and we could do everything we wanted. We admitted for 6 weeks, 20 pairs of twins per week. So we had 120 pairs of twins in one summer and we did this for 5 years. So we had 600 pairs of twins.

PSH. Were these children?

RL. Children from ages 5 to, it’s in there too, in this little brochure, 5 to 15 I think, mono/dizygotic, boys, girls whatever, but twins. And the way we got them, we advertised in the newspapers around the city, but no other city. So we advertised around and in the city they knew, and we offered a sort of camp setting. They would stay at the hospital and every afternoon they would go either to the zoo or to the theatre, to the planetarium, wherever, and in the morning we would do testing and we would draw blood only once a week, once during that time, and they had to be brought by their parents so we could see the parents. So every week on Mondays, 20 pairs of kids and parents would come, and we worked like mad and then we had them for the week and for that they would get a free medical, whatever, assessment from every, psychological whatever, and we did everything from blood types to singing voices. We had tapes and we would have the twins and they were 14, they were desperately embarrassed. And I bought toys from my own money and they got rewards and awards and they had a great time, and so the next year they always wanted to come again, but we wanted new ones.

PSH. So did you say this never was fully published?

RL. No, it’s only in these little brochures, what we did. And so that was what we were doing and other things. We also for one summer we admitted siblings of kids with PKU and siblings with galactosaemia, and did tolerance tests and all sorts of things. It was fun. So, I don’t know if Penrose knew about this, but one summer, well the summer of ’68 when things were looking up, he was in Vienna for a meeting and out of the blue, someone came for me and said, there is someone on the telephone speaking English, can you come and speak to him and “This is Lionel Penrose”. Well at first I fainted and then when I was resuscitated I asked if I could help him and he said he understood that this was the city of Mendel and I said yes of course, well could he and his wife come. This very weekend. We don’t need anything, which turned out to be true. They were so humble and modest. We would just like to come and see Mendel and the archives and whatever, and this was, as I say, ’68 so I think Mendel existed by then.

PSH. Was it before the official Mendel centenary?

RL. No that was 1965, the centenary, so they did a big thing in 1965, but everybody was watched. I had to translate for many people including Dubinin, you know the famous, and from Russian to Czech, and sometimes if someone spoke English from English to Czech and I was, I'm not saying this only because I was interviewed before, and told what to do and what not to do and how to behave, and I just didn't answer back. I just sat quietly and said, are you allowing me to go to the conference. Yes. So that was '65 and then things weren't wonderful but '67 they started to be a little better. So Mendel was beginning to resurface and so maybe that was also, well, '65, yes of course because the Institute was already open in '63. We had already decided and by '65 Mendel was around, but they were still watching us very carefully.

PSH. And Dubcek became Prime Minister in '67?

RL. '68.

PSH. '68.

RL. Yes. In January of '68 the Czechs beat the Russians in ice hockey which was . . .

PSH. I remember that.

RL. You do?

PSH. I do.

RL. That was like the dream team here you know, Lake Placid, that's gradually how it started. So Penrose wanted to come and see Mendel, so there was nothing easier. The museum existed you know. Orel was just putting things back together etc and because of my English and my children speak a little bit, we sorted things for the 3 or 4 days they were there. They came on a Friday, they left on the Tuesday. We quickly organised a talk and I have a lovely picture, which I think you can have a copy of, of Penrose sitting under Mendel's picture in the Abbey. Or not in the Abbey, in the building anyway. One of my favourite mementos. And so they came and because they came he said, well what is it you do. He understood that I was an MD, or whatever it is in English and so I showed him, and I think one of the things that interested him most were the 600 dermatoglyphics that we had, because that was one of his big hobbies and interests. It was quantitative and it was visible and it was objective and so I showed him and he said what else do you have? And so we showed him what we were doing. So that was our introduction.

PSH. And then, I know this is in your book and in your article [Laxova R (1998) Lionel Sharples Penrose, 1898-1972: a personal memoir in celebration of the centenary of his birth. Genetics, 150:1333-1340]....

RL. How we showed up on their doorstep, and it's not exaggerated.

PSH. I can absolutely believe that.

RL. Oh they stood there. ‘Here are the keys’ you know. ‘Where are the other keys’ said Margaret?

PSH. It’s a wonderful episode.

RL. Yes.

PSH. But in terms of your work, how did it happen that you were able then to start working . . .

RL. With Penrose?

PSH. Yes. Did he find some position? Had he already retired by then from the Galton?

RL. Yes. He had officially retired from the Galton, because he was born in 1898 so in ’68 he was 70 and I think he had had to retire at 67. I remember even while he was in Brno, we went to the opera and so we chatted together too and they loved music, both of them. And he was bitter about having had to retire. Maybe not more than anybody else, but he said I think I’m still capable of doing what I was doing and so it was his dream to retire, I mean not to retire, but to work in the middle of the patients that he was so interested in, and I think before he retired, while he was still at the Galton, he would go out to Harperbury and see some of them, because some of them had known him from before and when he received the Kennedy Award, which incidentally Harry Waisman here received too, so I don’t know if there are pictures of him receiving this crystal trophy as did Penrose. I saw the both identical trophies, which is sort of a nice memory; and so after he had received this, some cash went with it, so he opened, that’s why it was called Kennedy-Galton Centre. And so he had retired.

How did I come to work? Well, we showed up on that doorstep and they went away for the weekend and then they came back on Monday or Tuesday and said, what are you going to do? I said well I was going to go to Guy’s because I knew Dr Polani a little bit and to Great Ormond Street and see if I could maybe - I didn’t say literally - in my head I was going to clean bed pans, or maybe if I could do nursing or whatever until I could get my licence and, you know, get some permission to be a physician. And he said, well why don’t you come to Harperbury with me. So I did and I don’t remember, a week or something, but they found an MRC grant which was £2,000 per year and I thought that was a fortune, and he helped my husband get a job, which was so touching. So touching. He went with us to the interview, and my husband’s English was not good at the time, it was sort of intellectual English. He could speak. He knew all the big words and he used them appropriately, but his accent! But we went, and we sat in this ante-chamber at the Royal College of Veterinary Surgeons; He was a Veterinarian; and Penrose with us, and somebody came out and said “Can I help you?” and I, I think, said “yes we have appointment with”, and I introduced my husband and this is Professor Penrose. Oh yes, we are not interested, what did you say his name was, Lax? Well this is the man we are going to interview, and Penrose sat down again and said, well that’s alright, but maybe I should come with you.   He was unbelievable. Well if you want to, so he did and the Secretary went inside, wherever these people were waiting for my husband and said this is Dr Lax with his wife and another man. And so I said, this is Professor Penrose, who I think you probably know, because these were now academics, and they did. But that's how it started. So they gave him a job. I'm sure it was his presence.

PSH. So what were you doing when you started work with Penrose?

RL. The first thing they gave me, Helen Lang Brown, you remember, you know her, the Cerberus.

PSH. Yes.

RL. But we became really good friends. She liked me and I liked her.   They gave me a book by Sarah Holt on Dermatoglyphics to review, and I was so grateful. So I sat there and I read the book very carefully and I wrote a review of it, and they published it. I am sure that was a kindness, but anyway that was what it was meant to be for.

PSH. Was Sarah Holt working at the Galton then?

RL. At the Galton? No I think I once met her or went to visit her at home, but maybe she was working there, I can't say.   And then the next thing he took me around the hospital and I think he was testing me. I don't know, because he had already, they had established lots of interesting, you know, at that time, syndromes, diagnoses. So he wanted to know what I could recognise and so that was my first exposure to the residents there, to the patients. And they just loved him.   That's in the paper about the Bigols. Jim Crow didn't want to believe it. It's true. It really absolutely is true. The Mongols and the bigols.

PSH. I can imagine it.

RL. Because I am sure he had had a private tutor, this young man, and somehow his parents must have been interested in at least some education. So they all greeted him and there was a young boy there with Cornelia de Lange syndrome and he loved to tell stories, about how she died and she died of poisoning. Did you know that?

PSH.   No I did not.

RL. I think it was nitric acid or something. In the lab every morning they had morning something, you know a meeting, and they drank Coke, which was new at the time in Amsterdam or wherever. Amsterdam yes, because it was called Amsterdam dwarfism wasn't it. And she didn't know this Coke and they always offered it to her and she didn't want it and apparently one morning she came in and she was alone, so she went into the refrigerator and she thought she would taste it, and she drank I think from a glass, I don't know the details, a bottle, a glass, and she died of a perforated oesophagus.

PSH. Oh dear, oh dear.

RL. That's what Penrose – I don't have a document. Part of your history, but you would have to confirm it. Anyway there was a little boy with de Lange syndrome and he had a very abnormal pincer grasp hand and he was pretty malicious. He would go behind you and pinch you. Pinch your bottom and then Penrose brought in, this was typical of him, jigsaw puzzles. And he started doing them. He was never interested in the picture. He would turn them upside down and put them together perfectly, so he was given more and more complicated ones and so he did things like that. Sometimes he would make them for him. So he even improved a little because he got attention, and there were others like this. A pair of siblings that had PKU, who loved each other, a man and a woman by then. Very interesting cases, many hydrocephalus, toxoplasmosis, secondary hydrocephalus, all sorts, and so he took me around. That was interesting and he would take me to lunch and I would work with him. He took me back and forth in his car. So in the evening we would come home. The children would have been at school. My husband would have come home and I hadn't shopped. I hadn't done anything, so Margaret always invited us to dinner every single night for a while, because we didn't have a car yet. So I couldn't shop. I couldn't do anything. He was ready to leave in the morning. So then the next step was, he put me in the lab and said you are going to learn to analyse chromosomes, but in the meantime we are going to see patients.

PSH. Who was in the lab then?

RL. Yes. Michael Ridler was the boss. Janet, McEwan was her married name. They are all in the papers. There was Peter Ohara. He was a little miracle. Ohara without an apostrophe. Hair like this and Penrose had picked him up somewhere out in the gutter almost and he was very, very bright. He was doing electronmicroscopy and he's the one who found neurofibrillary tangles in the brains of people with Alzheimer's. There's a paper about that. So he was there. Then there was, his first name I don't remember. His second name was Timothy, another cytogeneticist. Janet and this Timothy. John maybe, Timothy, were doing chromosomes, and Michael. And Michael was at the time doing a survey of all the chromosomes in all the patients at Harperbury, and there were about 1600 of them; not surprisingly, two thirds of them were males and Penrose had his ideas about that one, and one third were females. So he was doing chromosomes and he made me learn and, as I said one night, one of my first ones came out and had some bands on it, which I didn't recognise as being significant, and started me on seeing patients and so people once in a while would call him to go to various hospitals, and so I would go with him, and then gradually I was able to see, they allowed me, because the MRC, because they gave me this grant, allowed me to see patients and I didn't need a licence and they told me I could practice if I wanted to in Canada too. Not that I was interested in going to Canada, that was why it was a horrible shock when I came here. They made me re-take all that, the exams. But anyway, we started seeing patients together and I would see them alone and I started gradually with a not even very well trained, she wasn't really trained, Susie, now her name is Stewart but at the time her name was Gilderdale and she had had a two year course in some kind of social work and together we did a survey, tried to do an aetiological survey, you know, repeat the Colchester survey as it were in

Harperbury, and that's what we were doing systematically. And I was interviewed during that time, I think on behalf of the MRC by Kushlick, do you remember?

PSH. Vaguely.

RL. Kushlick, something, Lorna, she was a very well known psychiatrist. Lorna someone, in London anyway. And they were psychiatrists, both of them, they were asking me all sorts of questions which I didn't have answers to. I was not a psychiatrist. I was more at that time a physical paediatrician, maybe dysmorphologist, I was learning chromosomes. I was learning metabolic genetics, but they gave me the money anyway. I think it was because, of course it was Penrose. So every year I got a little grant and had to re-apply. That's how we lived. And then Susie and I did what we called Ladies Babies, and he loved that, and then he died in the middle of it. We identified all the women at Harperbury who had had a baby or who had become pregnant, and then most of them or none of them had the child with them, and so we searched for the children

PSH Were these Down's patients mostly?

RL. No, not at all.

PSH. All types?

RL. Most of these women, first of all we looked at them aetiologically. A few of them had their retardation because of environmental factors, like accidents, were documented. Many of them were non specific, and to this day I think they probably are non specific. And we wanted to know the empiric risks for mental retardation, and here and there we found a male but very rarely or knew the father. I don't know, we identified maybe 4 fathers, not more. One was an incredible family. She was triple XXX. He was XYY, no he wasn't, a Klinefelter's. Yes XYY, I think he was, and they had a pair of twins. There are pictures of them, a bit of each. It was amazing.

PSH. Was it at this time Fragile X started to appear?

RL No. Fragile X didn't appear until the seventies, in fact '73 maybe or no, we knew nothing about Fragile X.

PSH. So presumably you and Penrose were familiar with there being some biological basis of . . .

RL. Mental retardation

PSH. in the excess in males.

RL. Oh yes absolutely. He suspected genes on the X chromosome, no question.

PSH. But there was no cytological abnormality that had surfaced up to that time.

RL. No, not that anybody knew, no.

PSH. So which year was it then you were uprooted and came over to America?

RL. Well my elder daughter came in ’74, the younger daughter still had to finish high school so she and I came in ’75.

PSH. Was that direct to Madison?

RL. Yes.

PSH. And was there any specific reason why it was Madison rather than somewhere else?

RL. Yes. It was amazing. I mean my husband was here first and he somehow, he had a grant from the Burroughs Wellcome Foundation. He worked at the Potters, Potters what was it called? Field Station anyway. Potters Bar, yes.

PSH. Potters Bar.

RL. Field Station for the Vet School and they were all very happy with him but he, I don’t quite know, he wanted to be, he was very foreign, very different from me and didn’t fit in with the Veterinarians.   Not that they didn’t like him, he just was somehow a loner.   He thought America would be more accepting, and again that’s in the book.   There was a postal strike once in England, London, wherever, and someone called him and said there was a job at the University of Colorado in Fort Collins for a teacher at the Vet school. And he took this job, sight unseen, on the telephone   They couldn’t even write because of the postal strike. So in 1971/2 he came here, and so we were pretty unhappy of course and so that is why we came and then there, anyway he didn’t get tenure because of his accent. The students complained that they couldn’t understand him. He was a very good teacher. He always was, but he was hard to understand initially. I mean he learnt of course and so he met someone from Wisconsin in Colorado, who was looking for a partner, and it had always been my husband’s dream to come to see Wisconsin, which was the dairyland of America and therefore the dairyland of the World.   Cows were his big love and they had the biggest yield of milk in the world. Pounds and pounds of it.   Thousands of pounds per year.   They call it pounds, the milk yield.

PSH. Interesting.

RL.   Yes. And so he came to Wisconsin, and so we came here too. We decided of course if he was here, this was where we would be, and there was a good university. And the reason I came here was that after Penrose died, he died in ’72. So we were together 3 years maybe, well ’72 in Spring, so in ’71 it had been 3, 3 and a bit years and so Cedric Carter came from Great Ormond Street to sort of supervise us at the Kennedy Galton Centre, and I continued to be very busy.   We were then, we started going all around the hospitals. And everything we did mostly was published. And we did really try, to on the one hand provide a service, but really to use it for publication. And we started in fact in late '72. '73 was the famous paper by Breg, 'Amniocentesis' and within two years, there's a paper in here too, one of the first, in the Lancet about a service, 'Prenatal Diagnostic Service' with Victor Lewis from . . . No he wasn't Northwick Park. He was at Watford. Northwick Park. Maybe. I did something with Northwick Park later too.

PSH. How did you then come in contact with Jim and with genetics in Wisconsin?

RL. So Cedric Carter came for those two years or two and a bit. Maybe not quite. He would sort of travel from where he lived, which was the other end, the other side of London, straight across to the north west. He travelled 2 hours there and 2 hours back to see us, and he pushed the aetiological study. We then started doing an aetiological study of kids in school, in special school, it's called the Hertfordshire study, we called it.

PSH. Yes.

RL. But first we were doing this Ladies Babies as we called them, the mothers who had got pregnant from Harperbury and he liked that, so he would push and push. So I think we did it more quickly than I would have done. But anyway, Cedric Carter met John Opitz somewhere at an international conference and he knew by then that my husband was in this country, in Wisconsin actually, and he came back and he said, I think they'd like you over there. There's a good genetics department and if you want a job I think you have it. So he must have given me a recommendation, and of course the name Penrose, I mean I owe Penrose my life I think. I really do.

PSH. So your link here really, first of all, was John Opitz.

RL. Oh yes. So we came here, as I said, elder daughter came here to college in 1974 and so we came in the summer. We brought her to college. My husband was in Darlington, which is 55 miles south west of here. That's where he was then established as a partner of this veterinarian whom he met in Colorado. So we came here. We had been to Colorado once, but that was before we thought we were ever coming here to live. I was hoping he would come back and indeed, well that may be not so important but it was important in our lives. My daughters, both of them did very well at school and the older one, she had 5 'A' levels and I made her do an 'A' level in Russian and in Czech which you could, and so she had 3 good 'A' Levels', not normal ones, and so she got an interview at Oxford and she wanted to study medicine and so she went but had no clue. Nobody had prepared her what was going to happen there. She was there for a weekend and I wrote to my husband and said she's got an interview at Oxford. If she gets in I'm not moving from here. You have to come home. And he said alright I'll come back if she gets into Oxford. So she went and she came back with the envelope you know and they offered her a position, not in medicine, in Slavic studies and she wasn't one bit interested. So she refused a position at Oxford.

So then you know I said OK, we'll join you in the US. So in '74 I came here, that was already when Cedric Carter had talked to John because my husband was already here, so I met them all here at the university, not really Jim. I hadn't met Jim, I don't think then. Only John Opitz and Jurgen Hermann who was here with him. Lots of publications with Jurgen. He had come from Germany and who is a private practice geneticist now, but was one of the first in the country and he made it go. And they said OK, next year if you come here to live, you can have this position, so that's how it was and then when I came in the genetics building I met Jim, and I couldn't believe that this was *the* Crow. I thought, oh goodness. Oh and the first time, almost the first time I was driving to the University in 1975 in October, I heard of course of the Nobel Prize given to Howard Temin at the University of Wisconsin, Madison. I thought, my goodness that must be a mistake. I can't be really here. It wasn't my first. I hadn't been here for longer than 2 weeks of course. That was in October and I came here in September.

PSH. And when you'd come here then, did you work closely with John Opitz after you arrived?

RL. Well, closely. Not really. Yes. I mean, sure. Yes, if you remember they put me at the Waisman Centre and the building where John was is not this one, but the one in the middle here, to my right, the old, old genetics building. He was there. So I would come here for conferences, for rounds. I would tell him what I was doing at the Waisman Centre but I wasn't here every single day here. I was at the Waisman Centre and then I got a grant from the Developmental Disabilities Council which organised the so-called Genetic Contact programme. I can give you a little paper which is somewhere. I don't remember where I put it. Here I think. This is it, because you see, this is what I thought you were asking for, and so somewhere here, mid 60s to 70s you know.

PSH. This is very valuable.

RL. Dysmorphology, cytogenetics, newborn screening and then here mid 70s, that was when I came, to mid 80s. Genetic counselling training programme, you've heard about that?

PSH. Yes

RL. And Genetic Contact Programme. One person per county in Wisconsin. So there are 72 counties but we had 60 contacts who we trained to do nothing but identify people who might need help genetically and refer them. Those two, identify and refer, and so there it is. Patients funded by the Developmental Disability Council of Wisconsin.

PSH. Oh that's very helpful to have, yes.

RL. I don't know for what it's worth.

PSH. Well we must soon go, so I think the best thing is, that has filled me in very much on the details.

RL. That doesn’t have any references or anything.

PSH. No but it’s valuable.   I’m going to stop the recording here and then we can have plenty of informal discussion later on.   Thank you very much.

End of recording.