

# A hobby neuropathologist from Far East resides in Western Europe

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## Preface

I am not old enough and would wait till my 80 years of age to accept your invitation to “Reflections” – this was my answer to Prof. Werner Paulus, several years ago. Meanwhile I lost my wife after her severe disease of several years and I needed time to regain my will and power to do something. I do not think it worthwhile to expose my autobiography, however, someone may be curious about a banal neuropathologist from Far East and a permanent resident in Germany. I must say that neuropathology (NP) was (and is) my hobby throughout my life; sorry to the serious academics/scientists.

## Curiosity about overseas, programmed affinity to Germany, and programmed medicine man

Before I begin to describe my life in childhood, I will open with my family history. An ancestor of my father, in the 13<sup>th</sup> century, had been a high officer of the 96<sup>th</sup> Kaiser (“Tennoh” in Japanese) Godaigo (1288-1339), from whom he received the family

name “Hori”; so that his full name became “Fujiwara-Hori Genzaemon-Naofusa”. Later he left the big family Hori and went to the country side Minoshima in today's Wakayama prefecture, far south of Osaka, where he began to work as a chief farmer and simultaneously as a physician. His descendants all succeeded him in this occupation. My grandfather, who died before I was born, was also a suburban medical practitioner and moved to another village, Nate, near the Kinokawa river. Nate later became famous because of the medical doctor “Hanaoka Seishu” (1760-1835) who successfully practiced breast cancer surgery under *general anaesthesia* using the plant “Mandragora” extracts (stramonium, as known today) for the first time in the world, 40 years prior to the generally known ether narcosis by William T. G. Morton (1846) or chloroform anesthesia by James Young Simpson (1847) in the Western countries. The small graves of the Hanaoka family and their successors still remain where my elder brothers used to play during their school ages. One of them became a school teacher of physics and another a neurosurgeon, while my younger brother became a gynecologist in later life.

My mother's father was also a general practitioner in a country side, who was the offspring of an ancient samurai family, so far as I know.

Several years before I was born, my father was sent to Germany (1938) by the Ministry of Education of the Japanese Government and stayed with Prof. Karl Bonhoeffer in the Psychiatric Clinic of the Charité Hospital at Berlin and with Prof. Paul Schröder in Leipzig. He devoted himself to the research theme "personality development in childhood" and wanted to be a child psychiatrist; however, there was no specialized child psychiatry in Japan at that time. During his stay in Germany, he visited many child-psychiatric clinics of the universities, not only in Germany but also in Belgium, Switzerland, France, etc. However, he had to interrupt his stay because of the crisis due to the war in Germany. Nevertheless he brought plenty of souvenirs from his German life, including a Leichert light microscope, a 8 (16) mm silent movie camera with many recorded films (his life with colleagues at the campus of Charité, driving on the Autobahn Highway, etc.), a Contax camera with many color slides (showing scenes of Berlin including Hitler's flags, etc.), a portable Telefunken phono-record player with many records (including Beethoven's symphony series, etc.), comic books ("Father and son"), several "Kinderbooks" and so on. Two months after my birth in Nagoya, Japan, the "Pacific Ocean War" had begun by the surprise attack of Imperial Japan on Pearl Harbor in 1941.

During the 2<sup>nd</sup> World War and afterwards till 1948, I was alone with my maternal grandparents in Wakayama, while my elder brothers remained with my mother in Nate because of school, although my father came back home from the war in the winter of 1945/46. Our (my) normal family life began again in April 1948 when I entered primary school in Nagoya at age 6. I admired and enjoyed my father's souvenirs, namely, silent movies, color slides and books. I also listened to his music records and learned to microscope insects or leaves from our small garden. At that time, I had already a vague image of Germany, together with a kind of longing, perhaps. During my school years (11 years of age) I got a pen-friend in Brazil (a boy of one of the emigrated Japanese families), and later (from 13 years of age) several pen-friends in Philippines, Thai-

land, as well as in (West) Germany because of my curiosity about overseas. To my German pen-friend I wrote in my first letter "*Ich lerne Deutsch*" (I am learning German); she really tried in our correspondence to correct my terribly broken German sentences.

During my school age I began to learn painting and playing the violin (at 8 years?). Every weekend I visited a sketch group for children at the Nagoya Univ. School of Medicine (hobby painting clubs of medical staff and students) but I did not like, or even I hated, to sketch or paint – it was my joy only to play in the parks with friends and hobby-teachers. On the contrary, I liked music and learned intensively to play the violin by the Suzuki method (Fig. 1). Every week I had a lesson by a music teacher, a member of the Suzuki violin school. My father supported Mr. Shin'ichi Suzuki personally from the stand point of child psychiatry and I was given a lesson by Mr. Suzuki once per year at the Suzuki summer violin school and even an occasional remote personal lesson by sending/sending-back recoded tapes to



Fig. 1 Concert somewhere in Nagoya at the child music festival

Mr. Suzuki. I gave a “solo” concert at age 13/14 as an absolvent of the primary course: I played Mozart’s Violin Concert No.3 and others by Vivaldi, Haydn, Beethoven, etc., but not by J. S. Bach whose compositions I did not like. A few years later in the progressed course of the violin school, I lost my interests to play the violin but liked rather to listen to the music. I told my father that I would give up my violin lessons. He answered me “your teacher gave you the violin (technique) but could not give you music” and allowed me to give up my violin lessons. I liked small children and played with them when our family friends visited us (Fig. 2) though without music. Nevertheless, I had several occasions to play the violin in my later life: we constructed a flute quartet group with my medical classmates (1962), or I was occasionally a helping member of a small student orchestra (because of lacking musicians for concerts). However, I was not a regular member of



**Fig. 2** Playing with our family friends; a girl left only with a half figure became later my wife

the orchestra because I preferred playing football as a regular student member at that time. In my later life in Germany, I had a chance to play duet with a colleague whom I made acquaintance at a private home piano concert by Prof. Orthner in Goettingen (1990).

I began my medical study at the Nagoya City University in 1960. I had gotten old German textbooks: Rauber-Kopsch’s “*Lehrbuch und Atlas der Anatomie des Menschen* (1930)” which had been owned by one of my uncles who never came back home from the war. I liked these textbooks and anatomy was my favorite subject of study; I dreamed to become an anatomist.

During my preclinical study I, together with several classmates, was accepted as a student assistant in the department of biochemistry where I practiced tyrosine hydroxylase extraction from potatoes and purified/quantified the activity, which was offered to our teacher for his research. After one year I changed to the department of pathology and remained till the end of my medical study. Together with my best classmates, we assisted in experiments of young researchers and learned much, such as dissection techniques and interpretation of autopsy findings, care and treatment of laboratory animals, histological staining applications, microscopic and photographic techniques, and so on.

Medical students at that time were, after successful six-years-long medical study (under the Ministry of Education), obliged to practice for one year as an “internship” under Ministry of Welfare, prior to the physician’s state examination; that is, medical graduates were neither doctors nor students. The fact was that the graduate should work as an unpaid helper for the physicians but there was no professional-educational curriculum/program so that the internship “students(?)” or medical graduates were practically nothing other than a physicians’ and care sisters’ assistant “slave” workers. For several years the medical students and graduates had been protesting and asking for the improvement of the internship-system, namely, establishing the medical-practical training program and stopping the “slave work”, in particular in the “national” hospitals under the Ministry of Welfare. Nevertheless, the Ministry ignored the graduates’ and students’



demands and this consequently led to boycotting of the internship by the graduates one year before us, refusing the “slave work” in the national, so-called “educational hospitals”. They remained in Univ.-hospitals and trained practically “by themselves” with support from teachers and experienced physicians of the universities. Since the Ministry of Welfare still did nothing to reform and ignored the students’ protests, as the following generation of the graduates, we had decided to boycott the physician’s state examination, refusing the physician’s license after one year of our “autonomous” internship training. We demonstrated (I was one of the leaders of the small protesting groups) in front of the national hospitals everywhere in Japan where the state examination should have been held, and we refused to take the exams – more than 95 % of all the candidates in Japan had boycotted the state examination. This meant that almost 6,000 physicians became lacking in Japan that year (1967). Finally, the Ministry of Welfare gave up and decided to discontinue the “current” internship system and promised to reform the postgraduate medical training – we had definitively won but we were without physician’s license (!), although we all began our postgraduate and specialized training without license under the supporting teachers or experienced physicians.

Although I boycotted the state examination, and hence without physician’s license, I was successfully accepted to the postgraduate school of medicine of Nagoya City University where I intended to perform scientific research during my professional training in psychiatry and neurology. Among several specialized sections in psychiatry which should all be mastered by beginners, such as psychotherapy, psychopathology, psychopharmacology, psychology, neurology, etc., etc., I learned intensively neurophysiological electroencephalography (EEG) and there I found spontaneously some research themes by myself. Six months after the boycott of the physician’s state examination, we had another chance to take the state examination, which the majority of boycotted candidates passed and finally became “physicians”. At my oral examination, an internist professor from another university was an examiner and asked me several questions showing an EEG-record of a uremic patient. After the exami-

nation, I convinced myself I could better interpret the EEG-record than the examiner.

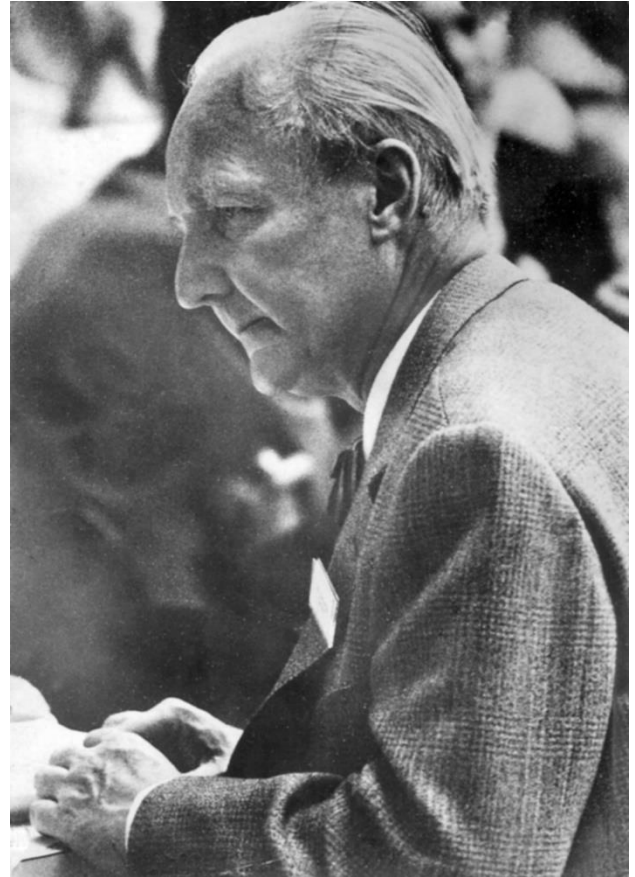
## My teacher(s) in neuropathology (NP)

During my specialized training in an EEG lab, I intended nearby to learn NP alone as a side job, as a hobby. There was neither a lab for NP-histology nor a microscope in our psychiatry department, but only one apparatus remained unused: Jung’s macrotome which was used by the former (deceased) chairman of the department. All my colleagues and senior doctors in the department of psychiatry were very collegial and friendly – they supported me for my NP trial and shared our limited annual budget for me alone so that I could prepare everything necessary such as reagents, glass slides, microtome knives, even photomicroscope and so on, but definitively no technical assistant. My first patient of hepatic encephalopathy died. My friend Nakamura in the pathology department helped me to perform the general autopsy. After the autopsy I cleaned up the autopsy room alone and all the neuropathological technical procedures were done by myself: fixation and cutting the brain, dehydration of slices, embedding them in paraffin, slicing (including large hemispheric slides) with a macrotome/microtome, and staining. Better stained were my fingers than the slides, of course. On microscoping I took microphotos (no color pictures but monochrome), developed the film, and printed the histological pictures all by myself alone in a dark chamber, followed by a case report at a local meeting. In the neighbor psychiatry department of (State) Nagoya University, my father, the chairman at that time, had a NP lab with a leading pathologist Dr. S. Iwase and several young colleagues. Every Tuesday evening after my daily job I visited the neighbor University lab and learned NP, preferably CNS aging processes including dementia and other degenerative diseases, or psychiatric disorders. The majority of the colleagues there, including K. Kosaka, H. Kobayashi, and H. Shibayama, were also beginners and we worked diligently and discussed till late at night. We established a study club, the “Nagoya NP Academy”, inviting Prof. H. Shiraki from Tokyo regularly and occasionally Prof. R. Iizuka from Hokkaido, amongst the leading neuropathologists in Japan at that time. “Nagoya NP Academy” still exists today, even in a greater

form and another club name, as a neuropathologists' assembly in mid-Japan.

I successfully finished my postgraduate school of medicine with certified PhD work on EEG, published in 1971, and now was a time for me to fly out into the wide world and in order to develop my "NP". I asked Prof. Iizuka, staying at that time with Prof. Hans Jacob (Fig. 3) in Marburg, West Germany, who might be the suitable and best German teacher for me, a beginner of NP. He answered me: no one other than Prof. H. Jacob if I intended to learn clinical NP. I hesitated to come to Marburg: why would I learn NP in Germany with the help of a "Japanese" teacher? Prof. Iizuka wrote me: "Prof. Jacob should be your teacher and I have nothing to do with you." On my request, Prof. Jacob in the "Univ.-Nervenklinik (Neurology and Psychiatry) Marburg" accepted me with his words to Iizuka: "I am curiously waiting for a young Japanese who writes German in 19<sup>th</sup> (or 18<sup>th</sup>?) century style." I succeeded to get the scholarship of DAAD (Deutscher Akademischer Austauschdienst = German Academic Exchanging Service) of 1971.

In Marburg, I devoted myself in clinical psychiatry and neurology in the morning attending clinical conferences of psychiatry, neuroradiology and other weekly programs. Since there was no neurosurgical department in Marburg at that time, neurosurgical patients were occasionally be examined primarily there and then sent to neurosurgery in University Giessen (100 km distance), if necessary. Every day at 4 pm laboratory assistants brought newly stained slides to Prof. Jacob when he began to microscope exclusively with me alone for 3 hours. If he had gotten brains for macroscopic examination and cutting, several clinicians always attended and discussed. I used to microscope the cases before the laboratory assistants brought them to the boss. It was really a very hard training for me to microscope, one to one, face to face, an expert and a beginner, for three hours every day. However, it was the best time in my life. He not only took me to the several national and international congresses but also he included me every time in communication with his colleagues and so I could make acquaintance with a lot of international leading scientists in eastern and western Europe, such as Prof. F. Seitelberger, and many others. Meanwhile I submitted successfully my papers



**Fig. 3** Prof. Dr. Hans Jacob, 1970

to international journals, with support and guidance of Prof. Jacob.

I should add here to describe my private life with Prof. Jacob. He used to take a walk through the forest/country yard with his pet dog one hour before he began his laboratory work. On request, he took me for a walk every day and this was a wonderful time for me to learn about the human Hans Jacob: he explained to me not only psychopathology (e.g. to my question about traditional German and French psychiatry schools) but also philosophy, his loving impressionism paintings, Japanese classic and modern literature (he had deep insight), private personal communication, and so on.

In the NP lab in Marburg there was a collection of fetal brains of Prof. H. Solcher who allowed me to study these slides. It was new and fascinating for me since there was no textbook on fetal neuropathology. I really recognized that standard neuroanatomy in fetal periods was always different from each other, dependent on developmental phases. Prof.

Jacob had deep insight also in developmental neuropathology and stimulated me to study fetal “transitory” neuro-patho-anatomy, for example, transient surface granular cell layer of the brain stem (and later that of the cerebrum).

Through Prof. Jacob I could experience a large number of different kinds of NP cases but I decided to devote myself in fetal NP in my future since I thought I would have no chance to survive as a neuropathologist if I would do NP in the same fields as others do, such as brain tumors, CNS inflammatory diseases, cerebrovascular disorders, and so on. Independent of my decision, Prof. Jacob told me at farewell after my two years stay in Marburg that developmental NP and electron microscopic method should be included in my future study. I can summarize what I learned from him: 1) chronological pathology (“*Verlaufspathologie*”), and 2) multi-morbidity of (aged) patients. But I dare say, that the human Hans Jacob was what I learned most. He was/is the teacher of my life. (Fig.3)

## Being a hobby neuropathologist (with many more teachers)

*If you meet three persons, you will learn something from at least one of them (Confucius).*

Returning to Japan, not to my home Nagoya, but to Tokyo by the invitation of Prof. Iizuka, I got a research fellow position in the neuropathology section of the newly established Tokyo Institute of Psychiatry and a guest lecturer position in the Psychiatry Dept. (chaired by Prof. Iizuka) at the Juntendo University Medical School, Tokyo. While I happily enjoyed the peaceful “freedom of research” together with very friendly researchers such as (Prof./Dr.) M. Matsushita, T. Ishii, S. Oyanagi and others from different departments, as well as Prof. K. Hirayama in the Neurology of the Juntendo University and sufficient funds including those from the governmental ministries, I got an enormous shock when the book “Developmental Neuropathology” by R. L. Friede (1976) appeared because I believed at that time, I was one of the pioneers/beginners of this field of NP. However, here was a man who already established this special field of NP. Since several years I, of course, already marked with respect R. L. Friede and K. Jellinger as the pioneers

of this field, especially based on their publications on the concurring subject “cerebellar development” (1973/1974)\* and many other papers. Cooling my head and reading Friede’s book precisely, I believed I should come to him to learn. I wrote him asking if I could stay with him for several months/years in Zürich. His negative answer: “I know you from your publications (he cited my papers in his book), but I have no (physical) place for a guest.” Here I remember what Prof. Gisela Stoltenburg-Didinger, Berlin, one of the best colleagues of me, once told me: Prof. Gullotta in Bonn answered her when she would come to him to learn that she should bring her own chair since he had no place and desk for her in his lab.

\*Friede R L: Dating the development of human cerebellum. Acta Neuropathol 23: 1973

Jellinger K: Persistent matrix cell nests in human cerebellar nuclei. Neuropaediatric 5: 1974

During my practice in NP at Tokyo, I noticed my lacking experiences in congenital metabolic diseases. I knew that Prof. J. Peiffer in Tübingen/Germany published several works with neuro-biochemical and histochemical data, so that I applied for the scholarship of the Alexander von Humboldt Foundation for the study of this theme staying with Peiffer. The Humboldt Foundation and Prof. Peiffer accepted me in 1977 and it was nice timing since the annual German NP Congress would be held in Tübingen under presidency of Prof. Peiffer with main themes including “CNS malformation” which was one of my favorite subjects.

At that time Prof. Peiffer was the Rector of the University and busy with administrative responsibilities. Above all I should drive very often to the partner psychiatric hospitals for autopsy (since the competent pathologist in the institute fell ill), sometimes twice a day. I had less time to study my objects and we had no fresh cases of metabolic diseases for research. Instead of my intended study on congenital metabolic diseases, I found different cases of chromosomal anomalies, being untouched for research, so I tried to compose scientific papers based on these cases. During this unfavorable situation, I attended the German NP congress where Prof. H. Orthner from Göttingen, whom I knew by his works on hypothalamus, spoke to me (he already knew me by my publications) and intended to scout



me to Göttingen. But I expressed my anxiety about his offer, because I, primarily a psychiatrist, was against controversial psychosurgery on which Orthner worked neuropathologically, especially on morphological bases of the hypothalamic function of sexual criminals after psychosurgery. He promised me that he did not intend for me to be included in this work and that I could pursue whatever I would like in research. This occasion was just a moment of the decision of my destiny. I decided to live in Germany with my family as foreign residents in Germany and to follow the German life style: "Do in Rome as Romans do." Prof. Orthner told someone: "Hori had broken all bridges between him and Japan." Really, I avoided every communication with my friends and colleagues in Japan since then for a long time till I became used to living in German style. Prof. Peiffer invited me later to contribute one chapter in his editing NP-Textbook (1995).

The Department of NP in Göttingen, formerly one of the divisions in the psychiatric clinic of the university, belonged to the Neurological Center together with the Neurology, Neurosurgery, and Functional Neurosurgery Departments, and not to the Pathology Center. I could communicate intensively with neurological and neurosurgical colleagues in every occasion. Prof. Orthner possessed six medical staff positions, occupied by all experienced neuropathologists including H. H. Goebel (later Chairman in Mainz) and R. Meyermann (later Chairman in Tübingen) as well as a younger Japanese colleague Kenji Ikeda. The six members shared their duty for biopsy (neurosurgical pathology) and autopsy diagnostics in two months a year, that was, one should work hard alone (independently) for a month but in the following 5 months he/she was free from the duty of diagnostics. My proposal that I would take over every fetal and newborn autopsy all year long was friendly accepted by all my colleagues, so that the average numbers of autopsies I performed/diagnosed were 100 adult cases and additional 100 fetuses/newborns per year, in addition to abundant neurosurgical diagnostic cases, so that I could experience quite different kinds of CNS malformations including extremely rare cases. It was no problem for me that I drove to the related psychiatric hospitals to perform full autopsies for Prof. Orthner (officially appointed "Prosektor") several times a year, so that I could experience psychiatric



**Fig. 4** I used to prepare the fetal pituitary gland together with cranial base/clivus and pharyngeal roof. This, before the CT era, led to the discovery of a unique "pharyngosellar pituitary" (Acta Neuropathol 89, 1995)

or degenerative CNS diseases which were generally rare in the university-pathology institutes. At autopsy I used to perform by myself preparations of cranial base, inner-ear, paranasal sinuses, full course of internal carotid arteries, occasionally also oculi, and later pharyngeal roof for the investigation of pituitary development in fetal period (Fig. 4) without the help of "muscular and powerful" autopsy assistants ("Preparators" or autopsy helpers), while they helped me very much by detailed and plenty of photographic documentation on my request. I had enough time to sit in the library and even to observe the hundreds of "serial thin-sections" for electron microscopy, and to learn techniques of computer-assisted morphometry, flow cytometry, chromosomal analysis with cell culture (in the department of genetics) and other methods during my "duty-free" months. Colleagues, especially H.H. Goebel, helped me very kindly not only with diagnoses of neurosurgical specimens but also in reviewing my scientific manuscripts. During this time, Prof. Orthner was going to emeritus status and Prof. Friede (Zürich) was appointed to the new chairman of NP Göttingen. One year before he came to Göttingen, he was invited to the Annual Japanese Neuropathology Congress as a guest lecturer by the congress president Dr. Ishii in Tokyo (once my boss in the Psychiatric Institute of Tokyo), who earlier stayed with Friede in Cleveland. Dr. Ishii kindly invited me, too, as a personal secretary of Friede, designated my boss, so that I could personally speak with him about my research interests and many things about Göttingen. On his first day in Göttingen, Friede said to us all that we were all experienced neuropathologists and



**Fig. 5a, b** Self-made Japanese style room in Germany for my own mental hygiene

should do further what we would like in diagnostics and research. He told me personally, I should continue my favorite, developmental NP, since he would not do it as he selected his new research theme “peripheral nerves”. He, as a gentleman, never influenced my activity in developmental NP. Once I had a big problem on fetal brain development and wanted to ask him personally and expected a clear explanation with a definitive solution. His answer, however, was: “I do not know.” I was deeply disappointed because I could get no explanation from him; but on the other hand, I was glad, in secret, to have recognized: “what I do not know, he also does not know.” I learned from him more so about brain tumor diagnostics than developmental neuropathology. Prof. Friede was, nevertheless, my later “big” teacher of NP.

Elder colleagues had left Göttingen and younger colleagues came. My monopoly of

developmental NP was to be given up for the training of younger people, so I decided to move to Hannover (1998).

After moving to Hannover, we built our own small house for my family, including my wife and daughter, in the suburbs of Hannover. In the cellar I constructed a room in Japanese style by myself without any professional help (Fig. 5a, b). This room was/is very comfortable for me and I used to sit alone and meditate whenever I had a stressful day or had some troubles in my job; this room served/serves my mental hygiene.

In the Institute for Neuropathology of the Hannover Medical School, I experienced about 700 autopsy cases per year, the majority of which I examined by myself alone, including forensic cases of CNS and gift fetus-cases by colleagues of external pathology institutes, and consulting cases, too. However, in the course of time, the number of



**Fig. 6** Prof. Bogolepov, Director of the Brain Research Institute in Moscow, Russian Academy of Medicine and his sister Prof. Irina Bogolepova in front of the sample case in which the slides of Lenin’s brain are stored along with those of some other historical personalities.



autopsies reduced and reduced; this tendency, as well known, was generally in every country. Thus, I could find time to visit to learn more by experts in each field, including Dr. Gosztony in Berlin (immunogold-EM-technique), Prof. Mehraein in Munich (immunohistochemical application in degenerative diseases), and others. On the other hand, several guests not only from Europe and the United States but also from Japan visited me: Prof. J. Martinez (Pittsburgh, US), Prof. J. E. H. Pittella (Brazil), Prof. H. ten Donkelaar (Netherlands), Prof. Yukio Fukuyama, Prof. Haruo Matsuyama, S. Fushiki, H. Miyata, Kazuhiko Ikeda, T. Yamashima, later T. Uchihara (Japan), and many others. Some oversea colleagues stayed with me at Hannover as guest researchers for years or months, such as Dr. Sergio U. Dani from Belo Horizonte, Brazil or Prof. Irina Bogolepova from Moscow. With each of them consequently I could publish monographs: "Principles of Neural Aging" (Elsevier, 1997) with S. U. Dani and G. F. Walter, and several contributions as independent chapters in Russian monographs (I myself cannot read/write

Russian medical articles) with I. Bogolepova (1996). (Later I visited her in the Brain Research Institute Moscow of the Russian Medical Academy; Fig. 6). Here I would like to mention one of the best seller books "Clinical Neuroembryology" (Springer, 2006, 2014, and 2023) with Hans ten Donkelaar and Martin Lammens; this was a crystal of hard work with one of my best colleagues Hans, whom I met, invited, visited, and discussed intensively in Hannover, in Tottori/Japan, and in Doorwerth/The Netherlands.

My bridge to Japan was, without my awareness, reconstructed and became so fine as a rainbow. I could often visit Japan and see not only old and new friends or colleagues there, but also I met European fellows, sometimes as my co-visitors or as a host in Japan (Fig. 7, 8): Prof. K. Jellinger, Prof. P. Kleihues, M. Lammens, G. Stoltenburg-Didinger, S. Weis and many others (Kyoto), later Manfred Oehmichen (at Osaka), Werner Paulus (at Tokyo), Ralf Schober (at Takamatsu), Markus Tolnay (at Nagoya/Toyohashi), Herbert Budka (at Tokyo),



**Fig. 7** From the 2<sup>nd</sup> left: Prof. Jellinger, Hori, a Kyoto Beauty, Congress President Prof. Yonezawa, Prof. Friede, and Prof. Kleihues (ICN 1980 at Kyoto)



**Fig. 8** Japanese NP Congress 2007; from left: H. Akiyama, M. Graeber, K. Ikeda, W. Paulus, A. Hori, K. Tsuchiya, and T. Arai

Torsten Pietsch (at Tokyo), Alexander Stan (at Tottori/Tokyo), Almuth Brandis (at Toyohashi), Ingmar Bluemcke (at Toyohashi) as well as already mentioned Hans ten Donkelaar and many others. It was my great honor not only to have met and spoken but also communicated with Prof. Asao Hirano (Montefiore) (Fig. 9) as well as Prof. Kinuko Suzuki (North Carolina, lastly Tokyo). I was visited by several high officers from the Ministry of Welfare and Labor of the Japanese Government (our enemy during my postgraduate time!).

I was requested to contribute to a NP-Textbook a chapter on developmental neuropathology: Paulus and Schröder (Eds.): *Pathologie–Neuropathologie*, Springer, 2012, former Peiffer (Ed): *Neuropathologie*, Springer, 1995. I described fetuses of atomic bomb victims. It was only one line in my chapter but I am proud of this crystal one line which was the extract of my study results after a 7-days and 6,000 double miles trip to Hiroshima in 2001. I visited RERF (Radiation Effects Research Foundation), formerly ABCC (Atomic Bomb Causality Commission), founded initially in 1946 by the National Academy of Science, US and managed by the General Headquarters of the US Army. This was one of my research projects on intrauterine radiation effects on fetal

development, supported by DFG (*Deutsche Forschungsgemeinschaft*) and my friend in the Ministry of Welfare of the Japanese Government.



**Fig. 9** Prof. Asao Hirano, Japanese NP Congress 2010



Two years before my planned retirement at 65 years of age, the independent Institute of Neuropathology of Hannover Medical School was integrated under the Institute of Pathology. On this occasion I accepted the call from Japan to one of the National Hospitals in Western Japan, later renamed “Tottori Medical Center” in which a clinical research institute was to be established and opened. I should contribute to its construction. I temporarily left Hannover and moved alone to Tottori, leaving my family in Germany. One and a half years later, the research institute was opened with a young leading staff, so I gave up this “office job without medical work” although my contract was effective for 3 years. I accepted the invitation to the “Research Institute for Longevity Medicine” from a private organization with a special hospital for aged and handicapped (mostly post-apoplectic, mentally disabled and/or physically handicapped, and dementia patients), with about 500 beds, and additionally several care homes for the handicapped and aged with additional 500 beds, where I would work as a clinician and simultaneously as a neuropathologist (2005-2016). The institute and hospital were in Toyohashi, not far from Nagoya, my earlier home town. I was happy and satisfied with my dream-job: clinical struggles and NP autopsy (deceased patients treated by myself could be examined pathologically and critically by myself!). To tell the truth, I became ill with a stress ulcer because of highly demanding clinical care for critical patients, mostly at end stages. In the latter five years, I worked the first 3 months in this hospital/institute and the following 3 months again in the Institute of Pathology, Hannover Medical School, where, at that time, only one neuropathologist, my colleague Dr. Almut Brandis, worked. Pivoting more than 9000 km distance between Japan and Germany every 3 months was hard but I enjoyed the intercontinental flight and, on one occasion, a surface route round trip by the trans-Siberian railway and the connecting ferry between Vladivostok and Sakai/Tottori. I made several stops in Siberia visiting several cemeteries in the suburbs for war-captured, not guilty, and fallen Japanese “citizen” soldiers of my former generation. Fortunately, I could read Russian Cyril letters and could speak broken Russian sufficiently for tourism so I had no difficulty finding the cemeteries in Irkutsk, Khabarovsk, and other Siberian towns.

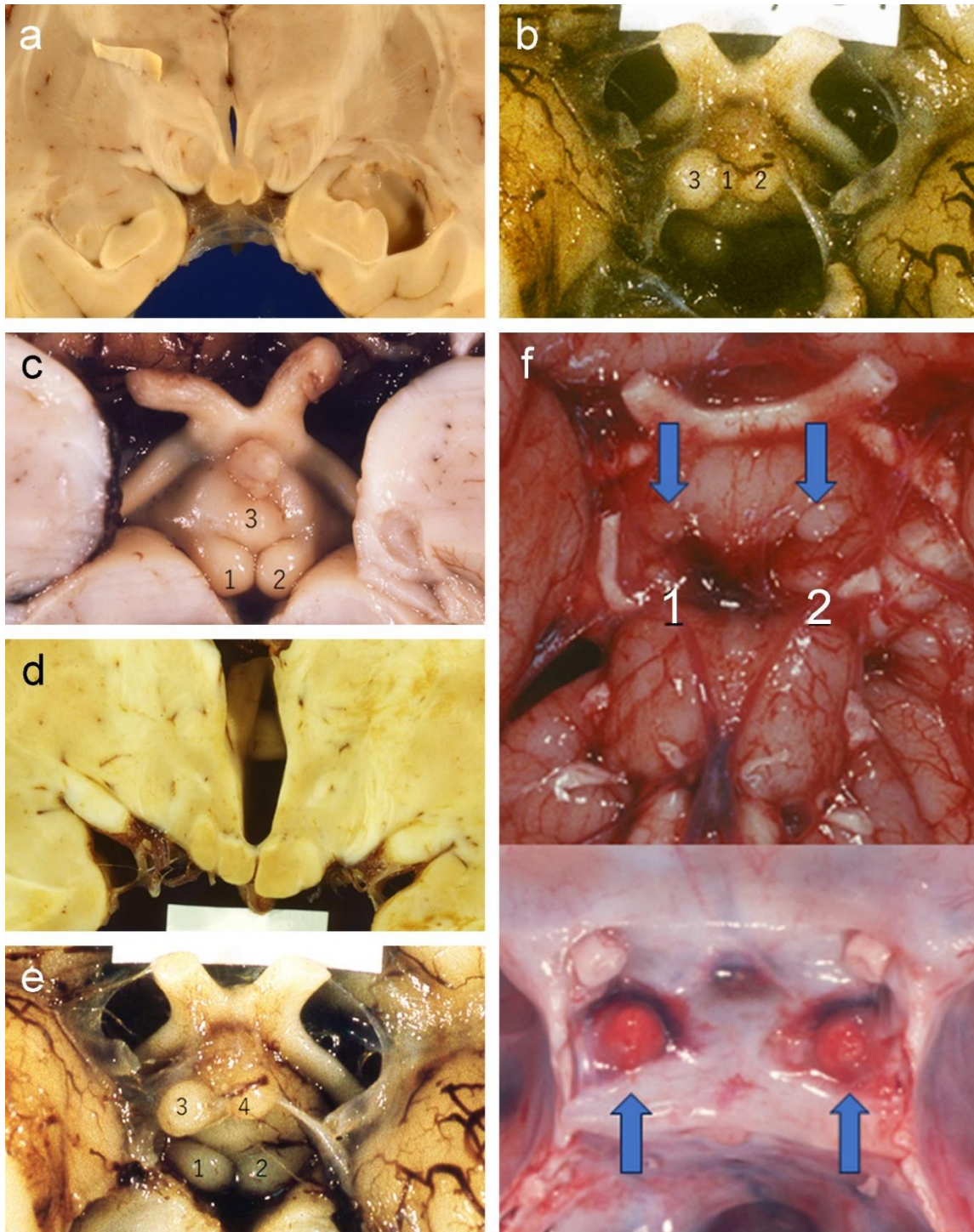
## Submission of papers to medical journals

Back to my younger, NP-beginner time. I tried to submit papers to different international journals independently. Once I got an answer from a psychiatric journal with the reviewer’s arguments: acceptable after revision. The reviewer not only proposed some corrections of scientific descriptions but also explained to me in detail, how the paper should be constructed, how the legends to the figures should appear and so on. For a beginner like me, it was very helpful and I was very thankful. Although anonymous, it was easy to identify the reviewer. Later I told these facts to my colleague Stoltenburg-Didinger who explained me that the identified referee was known as an ideal boss (of another institute) who was not only an excellent NP teacher but everything could be learned from him, such as skills and techniques of a successful application for research funds or manners of candidate for a new position in an institute, and so on.

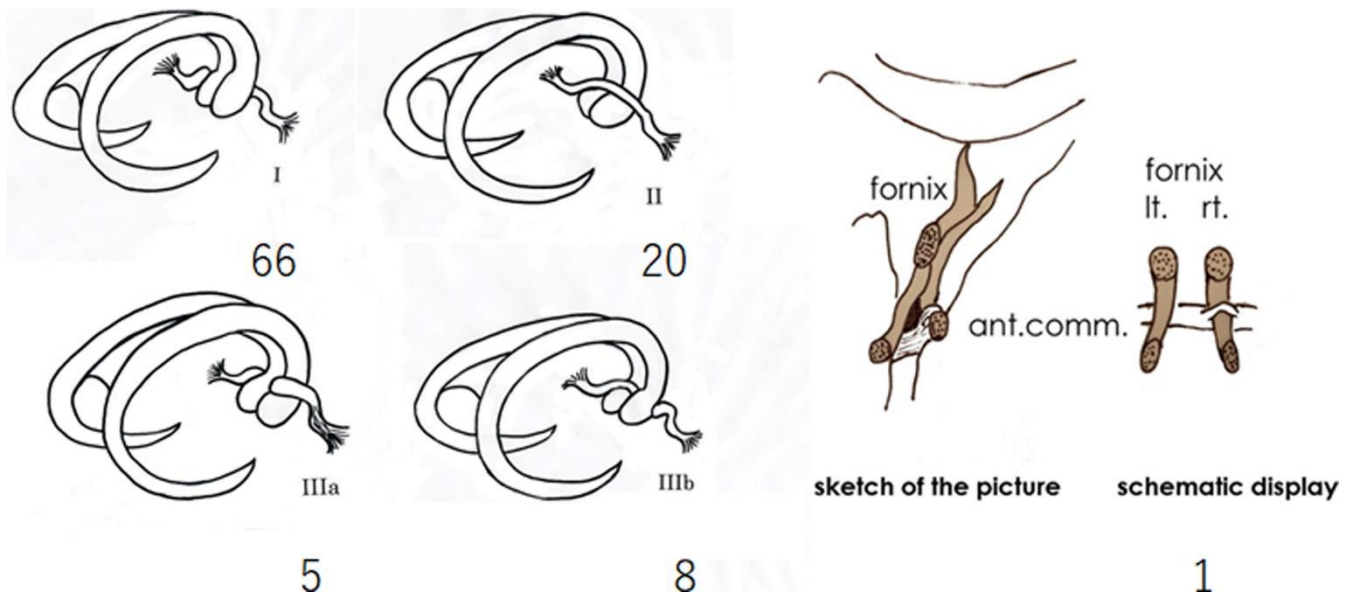
When I submitted my paper to an American journal, the editor sent me back the manuscript with comments of a referee and proposal of revision. The referee pointed out not only some scientific problems but also proposed very detailed grammatical and stylistic corrections of my sentences, pointing out the unsuitable expressions or errors, which many “Japanese” tended to make. In this case I was also thankful for the very kind and friendly review with “encouragement” for a beginner by the referee, whom I could, of course, identify: a famous US-Japanese neuropathologist, whom I made personal and very friendly acquaintance and communication many years later.

I remember my experiences as a requested referee in my later NP life. I should review a case report of a less known type of CNS malformation. The discussion of the authors about formal pathogenesis was, however, not compatible with my interpretation. But I could not reject the paper only because of the different interpretation by the authors and the referee. I criticized the paper with the contradictive argument of the authors and explained another aspect (my opinion), suggesting that the authors should consider another aspect in their discussion.





**Fig. 10** From my hobby collections: different features of mamilary bodies in human brain. **a:** *Unimamillaria*? Fusion of mamilary bodies (the first report by Dr. Pittella in 1985). **b:** *Trimamillaria* or *quintimamillaria*? No! Numbers indicate three pieces of ganglionic hamartoma. Ordinary mamilary bodies are seen in the shadow, posterior to hamartomas. **c:** Again *trimamillaria*? No! 3 is “eminencia grisea” (tuber cinereum) of the hypothalamus, a normal anatomical structure. The pituitary stalk is seen near chiasma opticum. **d:** *Quadrिमamillaria*? Morphometric studies showed insignificant difference in neuron cell count both in the lateral and medial subnuclei of the corpora mamilaria between this case and control cases; the size of neurons in this case was larger than that of control cases, but statistically insignificant, so that this case remained unreported. **e:** Again *quadrिमamillaria*? 1 and 2 are regular mamilary bodies, 3 and 4 are ganglionic hamartomas. (*Acta Neuropathol* 56, 1982). **f:** *Diastematomamillaria*? Mamilary bodies separated from each other and not side-by-side (1, 2) in a case of median cleft face syndrome with double pituitary. (*Acta Neuropathol* 59, 1983) Arrows in upper and lower pictures indicate double pituitary stalk and double pituitary glands, respectively.



**Fig. 11** Another example from my hobby collection: anatomic variants of fiber crossing of the anterior commissure in relation to the fornix. Of 100 examined adult brains, 66 showed type I, 20 type II, 13 type IIIa+b, and the last one showed a unique loop formation. According to a personal MRI, examined in 2013, my own anterior commissure showed a type I course.

My decision was to accept this work for publication after revision. Today I still believe my interpretation was right and that of the authors was incorrect. This reference was based on a bitter experience: an early submission of mine was simply rejected by one of the referees without rational reasons, only saying “this is a well-known fact and nothing new” which was absolutely incorrect. I did not respond and I myself rejected to (re)-submit my papers, for a long time, to this qualified journal with one disqualified referee.

Once I tried to examine the intoxicated neuronal migration disturbance experimentally in my younger NP life. After I killed the first two of several animals alone in my lab, I asked myself if it was OK to do so, even if I could perhaps expect some fine results in my experimental research - I decided I would never again kill lovely animals.

I enjoyed my NP job, as well as related publications, as one of my hobbies and always with joy and humor. For example, I eagerly looked for a plan for publishing in new journals and I tried to submit my works several times in “Volume 1” of the journal and, if possible, its “Issue 1”. One of my best colleagues, Prof. A. Matsumura, a neurosurgeon and now in emeritus, found it amusing and helped me

later. Trials in success were: Brain Dev Vol. 1 No. 2 (1979); Clin Neuropathol Vol. 1, No. 1 (1982); Child’s Nerv Syst Vol. 1, No. 6 (1985); J Med Imag Vol. 1, No. 1 (1987). Today there are so many new “online journals”, some of which seem to be, unfortunately, dangerous pirate journals.

With humor and joy in NP, I am proud of my own photographic documentation, some examples of which include: one, three, and four mamillary bodies (?) (Fig. 10); anatomic variability of anterior commissure fiber course (Fig. 11).

Prof. C. Hartmann, chief of the Division of Neuropathology at Hannover Medical School, allows me to visit his lab regularly. He kindly accepts my hobby NP, which remains so in my life further in Germany, while still keeping my Japanese nationality. My old colleague Prof. Uros Roessman from Cleveland, emigrated from former Yugoslavia to Austria and finally to the US, once answered my question, what home is:

*“Home is where you are now and feel at home.”*