

## Heinrich Simon Frenkel (1860–1931)

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Received: 15 November 2016/Revised: 16 November 2016/Accepted: 17 November 2016/Published online: 24 November 2016  
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While Heinrich Simon Frenkel, author of “The treatment of tabetic ataxia by means of systematic exercise” [6], is gradually rediscovered as a pioneer of neurorehabilitation, his published biography has remained fragmentary and fraught with errors [2, 10].

Frenkel was born on June 5, 1860 in the Polish capital Warsaw, then part of Russia, and studied medicine in Germany, starting in Heidelberg. He received his doctoral degree in 1884 in Leipzig, for work on tadpole tail epithelium, which he followed up with a study on nerve-skin contact also in man while already in medical practice in Dornheim, near Darmstadt [7].

In August 1886, Frenkel married Pauline Peiser, one year his junior, from Thorn (now Toruń, Poland), with a son born in 1887. The next year, they moved from Dornheim to the very south of Germany where Frenkel worked at the Schloss Marbach sanatorium. The Frenkels remained in the region of Lake Constance but changed country when they settled at its Swiss shores in 1890. While in charge of the Bad Horn sanatorium, Frenkel established his fame in the treatment of *tabes dorsalis*.

“The method which he has so scientifically evolved is the result of an observation made during the treatment of one of his tabetic patients. At the first examination, the patient was unable to correctly perform the simple test of stretching out both arms and with closed eyes bringing the tips of the extended index fingers together. Much to Frenkel’s surprise, at the second examination, a few weeks later, the patient performed the test admirably, and upon

inquiry stated that he had repeatedly tried the movement at home” [1]. Frenkel first reported on his approach of repetitive exercise derived from that serendipitous observation on September 18, 1890 at the meeting of the Assembly of German Naturalists and Physicians in Bremen [5]. His ataxia treatment was immediately embraced by Ernst von Leyden (1832–1910), head of medicine at the Charité hospital in Berlin, who set up “Frenkel exercises” for his own patients.

Just up the hilltop from Bad Horn, lies the village of Heiden. Also a health resort, overlooking Lake Constance and renowned for whey cures, it owed its reputation to Albrecht von Graefe (1828–1870) who spent many summers practising eye surgery at the “Freihof” hotel of Emma Altherr-Simond (1838–1925). She rightly expected a similarly strong pull on guests when she called Frenkel to work at her institution as of 1893. Aged 33, he must now have felt assured of his future. He had his family, augmented by a third child in 1891, released from Russian citizenship and the Frenkels were naturalized in Switzerland.

Practice in Heiden was of a seasonal nature, with ample time to travel. As of 1894, Frenkel spent time in Paris. In 1898, he was awarded the sum of 1000 Francs by the French National Academy of Medicine for his work, and he was also involved in the music life of Paris, initiating the “nouvelle société philharmonique” in 1901 [9]. Next to Paris and Berlin, Frenkel’s approach was endorsed in Russia and he was invited to speak in Moscow at the International Congress of Medicine of 1897. The winter of 1906/07 he spent in New York where he presented tabetic patients that he had trained there. The wide popularity of Frenkel’s approach is beautifully demonstrated in a Munich hospital by a floor mosaic of 1910 that represents the foot traces to follow during his gait exercises [3].

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Frenkel was a major asset for the spa town of Heiden. Its guests clearly profited: “All were from the so-called better class of society, professors, judges, military officers, officials and business men. Probably the most striking effect after a few weeks treatment was the revival of the patient’s hopes. Men who had been confined to roller chairs for years, who had needed the aid of attendants to dress and to retire, developed a surprising amount of energy and spirit when they realized that they could again perform simple movements without aid and coordinately” [1].

By 1899, the family resettled again, this time to Zürich, while Frenkel, however, soon moved back to Heiden. As of 1903, he also set up an address in Berlin and started working under Theodor Ziehen (1862–1950) at the Charité psychiatry, most likely in pursuit of “proper” recognition within academia. Instead of further pursuing the syndromal treatment approach that he had developed outside of the university system, he now focussed on disease mechanisms of tabes dorsalis. Eventually, as head of the serology division at Ziehen’s clinic, Frenkel embraced the novel procedures of lumbar puncture and of serologic testing as well as the revolution of Salvarsan chemotherapy. Still, he continued publishing on neurorehabilitation and represented Switzerland at the International Congress of Physical Therapy in Rome (1907), Paris (1910), and Berlin (1913). In 1913, Frenkel was finally awarded the title of professor. It was immediately used to enhance “Freihof” advertisements. In these years, he must have continually travelled between the sanatorium in Heiden, his family in Zürich (where the three children were married in 1913 and 1914), and his laboratory and practice in Berlin.

Following the practice of scientific session protocols, he was commonly known as “Frenkel-Heiden”, and used this name also on his stationery and in the Berlin city directory. “Heinrich Simon” are the two first names that he signed with (see Fig. 1) and they also appear on his death certificate (“Sebastian” [2, 10] seems to be due to administrative errors).

Frenkel’s professional activity in Switzerland ended with World War I, when Heiden lost accessibility and attraction for international guests. As of 1918, he set up his seasonal practice in Germany, in Bad Oeynhausen. When in April 1923 Fredrick Delius (1862–1934) came to see Frenkel, the latter was characterized by the British composer’s wife as “an intelligent little hunchback, very quaint” [4] in a singular glimpse on an elusive personality.

Frenkel’s wife died in 1926 and he followed on April 21, 1931, at the age of almost 71 years. His body was transferred from the very distinguished Dresden burough of Wachwitz/Loschwitz to Heiden but his gravesite has been lost. In its stead, a plaque commemorates Heinrich Simon Frenkel as a “founder of rehabilitation medicine who taught the paralysed to walk again”.



*Dr. med. Heinrich Simon Frenkel*

**Fig. 1** Only one portrait photograph of Heinrich Simon Frenkel has yet been located [9]. His signature is from 1905, too [8]

**Acknowledgements** For inspiration and information I thank Ruth Chalkley, Redcar, UK (“Friends of Frenkel”), Renate Bieg (Staatsarchiv Appenzell Ausserrhoden, Herisau, Switzerland), the Meyer family of Frenkel descendants, and Dr. Michael H. Stienen, Karlsruhe, Germany.

#### Compliance with ethical standards

**Conflicts of interest** The author states that he has no conflict of interest.

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