THOMAS MANN (1875–1955)
Thomas Mann, the famous German novelist, essayist and cultural critic, was awarded the Nobel prize for literature in 1929. He was born in Lübeck, into a wealthy trading family that moved to Munich in 1891, where Mann worked in an insurance company, at the same time attending some lectures at the University of Munich.

His writing career started in the magazine Simplicissimus. Inspired by the works of Schopenhauer, Nietzsche and Wagner, he soon started on his first major work, Buddenbrooks, published in 1901. Here he used the technique of leitmotiv, which he adapted from Wagner, to describe the saga of a wealthy German family declining from strength to decadence. Indeed, the main topic of all his novels was the moral decline of 20th century society, which culminated in the Second World War. In 1905 Thomas Mann married Katja Pringsheim. They had six children, among them Klaus Mann, a novelist, actor and journalist.
After Buddenbrooks, Mann concentrated on short novels such as Death in Venice (1912), the story of Gustav von Aschenbach, a writer who fell hopelessly in love with a young teenager Tadzio. Obsessed with the boy he stays in Venice during a cholera epidemic and himself dies of cholera. Mann’s second major book – The Magic Mountain (1924) – took him 10 years to write. In this masterpiece he described a sanatorium as a physically and morally unhealthy setting that almost destroyed young Hans Castorp who came just to visit his cousin, but stayed there for seven long years under the pretext of suffering from tuberculosis.

After the Nazis came to power, Mann moved first to Switzerland and settled finally in the United States in 1936, where he worked at the University of Princeton. In 1947 he returned to Europe but avoided Germany and lived mostly near Zürich, where he died on August 12, 1955. His last satire, the Confessions of Felix Krull, was left unfinished.

The Faustian pact
The Faust myth, a pact that an artist makes with the devil in search for mastery, is best known from Goethe’s famous work. Thomas Mann used the same theme in his last major novel, Doctor Faustus (1947): the life of the German composer Adrian Leverkühn as told by a friend. Doctor Faustus is the story of a former theology student who trades his soul and body to become a musician of genius (Mann 1999). His opposite, representing humanity and moral values, is his friend and the teller of the story – Sereneus Zeitblom. In the background is the innovative 12-tone music of Arnold Schönberg. The novel is flavoured with profound philosophical and psychological discussions that reflect the spirit of the time and, thereason for an article in a neurological journal, it provides excellent descriptions of various neurological diseases.

Neurosyphilis
Adrian Leverkühn is possessed by the devil who is represented as a young, magical, black-eyed prostitute. Unable to resist her charms, he contracts syphilis. Although the words syphilis or lues are not mentioned in the text, the different stages of the disease are well described. Shortly after his visit to the prostitute, Leverkühn goes to see a doctor for a ‘localized infection’. About a month later Zeitblom receives a long hallucinating letter from the composer, from which we can assume that luetic meningitis followed the chancre. In the letter a detailed conversation with the devil is described. The devil reveals itself to Adrian Leverkühn:

I, too, have my self regard and know that I am no unbidden guest. In short and plain, metaspirochaetosis, that is the meningital process. And I do assure you that it is indeed as if some certain of these small folk may have a passion for the uppermost, a special estimation for the region of the head, the meninges, the dura mater, the tentorium, and the pia, which defend the tender parenchyma within, and would swarm ardently thither from the moment of that first general infection.

The prolonged paretic phase of lues terminates Leverkühn’s creative life after 24 years of genial composing. His friend Sereneus Zeitblom first notices his strange look – ‘I realized that it was caused by the pupils, which were not perfectly round, but somewhat irregularly lengthened, and always stayed the same size, as if they were not subject to the influence of any change in light’ – a fair description of Argyll-Robertson pupils. Zeitblom last visits Leverkühn shortly before his death and finds him in the late stages of dementia. He remembers:

...there lay, under a light woollen blanket, a man who had once been Adrian Leverkühn, and whose immortal part now bears that name. The pale hands, whose sensitive shape I had always loved, lay crossed on the chest, like those of a figure on a medieval gravestone. The now predominantly grey beard made the narrow face look even longer, so that it bore striking resemblance to that of a nobleman by El Greco. What a sardonic trick of nature, one might well say that she is able to create the image of highest spirituality where the spirit has departed.

Through the book all the different stages of luetic infection are presented from primary chancre followed by secondary luetic meningitis 1 month later, and terminating with dementia and the pupil abnormalities of tertiary general paresis many years later.

Bacterial meningitis
In Leverkühn’s life there are few acts of humanity, one of them being his affection for his sister’s son Nepomuk. Unfortunately Nepomuk falls ill and Leverkühn notices the boy’s irritability, photo- and phono-phobia, the prodromal symptoms of meningitis:
Sniffles now dulled the sweet clarity of his eyes and surely it was only this annoying infection that robbed him of his appetite, made him irritable, and increased the sleepiness... Soon, then, there developed an intolerance of light and sound more disquieting than previous moodiness. He appeared to be excessively sensitive to the wagons pulling into the farmyard, to the sound of voices. The disease gets worse:

Nepomuk had had an abrupt eruption of vomiting, and along with a moderately high fever came headaches that inside of a few hours had grown obviously unbearable.

A local physician Dr Kürbis visits the patient and finds: ‘The pulse was rapid and the onset of stiffness of neck was evident.’ He also performs a diagnostic procedure:

Frau Schweigstill, pale but energetic and loyal as always to her humane principles, held the whimpering child as he lay crouched in bed, his chin and knees almost touching, and Kürbis inserted his needle between separated vertebrae, driving it into the spinal canal, from which liquid emerged drop by drop.

From the vivid description of bilateral abducens palsy we can even localise the disease to the basal meninges:

Let me say in addition that for those who saw Nepomuk, perhaps the most terrible thing was a secondary symptom, the way his heavenly eyes dimmed, squinting tighter and tighter...

Shortly after the beginning of the disease Nepomuk is dying, comatose because of raised intracranial pressure:

The eyes were not completely shut, but between the lashes nothing of the blue of the iris could be seen, only the black of pupils, which had grown larger and larger, though each of a different size, until they had almost swallowed up the lash of colour.

Migraine

Adrian Leverkühn, like his father, suffers from terrible migraine attacks. The characteristics are well described and the treatment suggested by a landlady, Frau Schweigstill:

Aha, so he had the migraine sometimes, and right nasty, too? She had thought so. She had indeed thought so just now up in the bedroom, when he had checked the shutters to see how dark he could get the room; for darkness, lying in the dark, night, black, with no light whatever in the eyes, that was just the thing, as long as the misery lasted, plus real strong tea, made real sour with lots of lemon.

Even today our therapeutic suggestions for a migraine attack often include sleep, rest and darkness. Triptans are, however, more helpful than tea with lemon!

Essential tremor

There are also some good descriptions of movement disorders in the novel. Our story-teller Serenius Zeitblom suffers from essential tremor. Writing during bomb attacks in Munich in the Second World War he remembers:

I sit here in my study, turning ashen, shaking like the walls, doors, and window-panes of my house and writing this account of a man's life with a trembling hand. But since this hand has reason to tremble in any case because of my subject, I did not let it bother me that a familiar difficulty was augmented a bit by a terror outside.

Hemifacial spasm

The doctor that Adrian Leverkühn visits after his rendezvous with the prostitute has a strange look:

A kind of tic that lifted one cheek and a corner of the mouth, while the eye joined in with a squint, gave him a problematic sour look, an uneasiness and touchiness that boded no good.

We can easily recognise hemifacial spasm.
Hyperekplexia
The last neurological case from Doctor Faustus is a neurological pearl. When introducing Kaisersaschern, Leverkühn's birth place, Mann describes its characters, and among them:

But to return to eccentrics of Kaisersaschern there was for instance a man of indeterminate age, who at any sudden shout would feel compelled to perform a kind of jerky dance with knees pulled high, and making a sad and ugly face, he would smile, as if to apologize to the urchins after him in yowling pursuit.

This poor character could have stimulus sensitive epilepsy, but the description suggests hyperekplexia or even more likely the Jumping Frenchmen of Maine (Saint-Hillaire et al. 1986). The Jumping Frenchman of Maine, in the middle of Germany? It is possible. When Saint-Hillaire and colleagues described the eight jumpers, they mentioned that similar behaviour patterns after a startle reaction were observed in different cultures (Saint-Hillaire et al. 1986).

CONCLUSIONS
All these examples of neurological disorders were collected from a single book, Thomas Mann's Doctor Faustus. It is somehow expected that novelists introduce into their fiction philosophical discussions, psychological analyses, and even touch on other spheres of art, such as music. But, in addition, in Mann's novels a reader can also find extensive descriptions from the fields of science and medicine. For example, in his novella The Black Swan, the female reproductive cycle, symptoms of the menopause and uterine tumour are all described. Searching the medical literature one can find specialists from various fields, from infectious diseases and dermatology to radiology and psychiatry, who have been inspired by the medical aspects of Thomas Mann's work (Dettmering 1970; Klein 1980; Leyh 1998; van Dijck 2000).

We can understand the neurological descriptions in Doctor Faustus as an extension of Thomas Mann's profound interest in medicine. And although one could regard them merely as an interesting addition to Doctor Faustus, I think they also offer material to be reflected on by neurologists. There are many lessons a neurologist can learn from Thomas Mann. His cases were based not just on detailed knowledge of particular neurological diseases, but also on good observations of people. After all, the ability to observe is one quality of a good clinician. In addition, Mann was able to describe his findings in such a way that the reader can easily recognise the neurological disorders. It is another quality of a good neurologist, to precisely document his findings. Mann's descriptions, especially of Nepomuk's purulent meningitis, were very detailed. There is a tendency in modern neurological textbooks for clinical descriptions to be shortened and replaced by voluminous information on sophisticated methodology and basic science. But facing a patient, even today, the neurologist needs to establish the differential diagnosis before embarking on investigations – detailed knowledge of the clinical presentations of neurological diseases, as Thomas Mann reminds us, is an essential precondition. Furthermore, basic science research in medicine is only possible in well-selected patients with the correct diagnoses, which are again based on astute clinical observations. And last but not least, Mann demonstrates to us, with his discussions from philosophy, theology, psychology, music theory and his neurological cases, just how much knowledge and effort is needed for a truly great work to be created. Perhaps we should think about that when writing our neurological papers.

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REFERENCES

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