Auenbrugger and Laënnec
Two pioneers who have demarcated the development of Western thoracic medicine

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Auenbrugger, (Figure 1) senior physician to the hospital of the Holy Trinity and the Spanish Military Hospital at Vienna, introduced percussion of the chest as a diagnostic tool. It is said that this son of an Austrian innkeeper from Graz first latched on to the diagnostic potential of percussion after he had observed his father tapping wine barrels in his cellar. Leopold studied medicine in Vienna during the time that the medical school there was being reformed along the lines of the Leyden school by the Dutchman Gerhard van Swieten (1700-1772). Auenbrugger was blessed with a musical ear and this undoubtedly helped him unravel the dullness and resonances which he elicited through the percussion of the chest and correlate them to underlying pathological processes. He published his findings in 1761, as a modest little volume of 75 pages, 'Inventum novum in percussione thoracis ut signo abstrusos interim pectoris morbis detegendi thoracis.' (Figure 2)

Auenbrugger established that by percussing the chest wall a careful clinician could obtain almost as much information about underlying pathology as if he were looking through the chest. It was thus possible to diagnose abscesses, areas of collapse, consolidation of the lung, air in the pleural cavity, pleural effusion and different kinds of enlargements of the heart.

He was also an accomplished musician and at the Emperor's request wrote the libretto for a comic opera, Der Rauchfangkehrer (The Chimney Sweep) for the court composer Salieri. Its first performance was reported to have been 'ein Kolossales Succes'!

Although he was ennobled in 1784 his new method of clinical examination was not immediately widely accepted. Indeed it is said to have been given
only a muted reception by his contemporary, Anton de Haen (1704-1706), one of Herman Boerhaave’s (1668-1738) star pupils, who as Professor of Medicine in Vienna did a lot to introduce thermometry. Auenbrugger was well aware that it was not easy for innovations to be accepted by one’s professional colleagues, for in the introduction to his book he wrote: ‘... it has always been the fate of those who tried to improve their arts or sciences to be beset by envy, malice, hatred, detraction and calumny.’8 He was being perhaps a little paranoid but not totally so.

The importance of percussion as a bedside skill in the clinical examination of a patient was however fully appreciated by one’s professional colleagues, for in the introduction to his book he wrote: ‘... it has always been the fate of those who tried to improve their arts or sciences to be beset by envy, malice, hatred, detraction and calumny.’8 He was being perhaps a little paranoid but not totally so.

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in a number of other European countries. Forbes, who had earlier translated Auenbrugger's work, became an admirer of Laennec. He translated into English his work, first published in Paris in 1819 as 'De l’auscultation médiate, ou traité du pronostic des maladies des poumons et du coeur'. Forbes was however sceptical as to whether this 'ingenious instrument' would ever 'come into general use' in England 'because its beneficial application requires a good deal of trouble and skill but also because its whole character is utterly foreign'. In addition Forbes felt that 'To Englishmen there will always be something ludicrous in the image of a grave physician listening to a chest through a long wooden tube as if the disease were a living thing in communication with him ....' This Scottish physician had something even more damning to say about English clinicians: 'there is in this method', Forbes wrote, 'a sort of bold faith in the physical examination of patients wholly alien to English medicine, more accustomed to calm cautious philosophical musings'.

He could not have been more wrong! Laënnec's medical and scientific achievements were many. Based on clinical and postmortem findings he described many respiratory ailments ranging from tuberculosis and asthma to bronchiectasis, a condition he called 'bronchorrhées purulentes'. He was eventually appointed to the Chair of Medicine at the Collège de France in succession to Corvisart. Laënnec died of tuberculosis almost certainly picked up in the post mortem room.

Percussion and auscultation helped the physician obtain an objective view into a patient's illness. It may well be worth quoting here what one of Laënnec's students, Jean Baptiste Bouillaud (1797-1881) had to say in his book 'Essai sur la philosophie médicale et sur les généralités de la clinique médicale' published in Paris in 1836: 'C'est ainsi, par exemple, que dans les maladies de poumon et du coeur, l'oreille, s'il m'est permis de parler de la sorte, voyant et touchant ces organes, receuille, au moyen d'un examen attentif, des signes qui, comme l'a dit Laënnec, rendent le diagnostic de la plupart des maladies dont il s'agit aussi sûr que celui de certaines maladies chirurgicales, telles que les fractures et les luxations entre autres'.

Decades would have to pass before radiography would make the next significant contribution to the diagnosis and follow up of diseases. It was in fact on the night of November 11th 1895 that Wilhelm Conrad Röntgen (1845-1923), professor of Physics at the University of Würzburg in Bavaria, while investigating the passage of an electric current through a vacuum tube, discovered X-rays. Chest X-rays were to transform the diagnosis of pulmonary diseases especially tuberculosis, but Auenbrugger's and Laënnec's introductions still form an integral part of every clinical examination.

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