

# Understanding the liver through the ages

In antiquity the liver was thought to be the very source of life, the centre of all affections and emotions and the seat of the soul. Rare Books Librarian John Dallas looks at writings about this important organ.

The Greek physician Galen gave the liver the central role in the function of the body, as the organ that took food from the gut and transformed it into blood. For more than 1,000 years Galen's writings were considered authoritative. It was not until the 17th century that the teachings of the ancient Greeks concerning the liver were questioned.

## FRANCIS GLISSON (1597–1677) *Anatomia hepatis* (Amsterdam, 1659)

The English physician Francis Glisson published the first book devoted exclusively to the anatomy of the liver. Glisson used advanced methods, such as the injection of coloured liquids and casts, which enabled him to illustrate the vessels of the liver. His book gives the first accurate description of the capsule of the liver (Glisson's capsule), its blood supply and the sphincter of the bile duct (Glisson's sphincter).

## MARCELLO MALPIGHI (1628–1694) *De structura viscerum* (Frankfurt, 1678)

Marcello Malpighi is regarded as the founder of microscopic anatomy. He was the first to use a microscope to study the liver and to describe its glandular components accurately. These observations, along with William Harvey's discovery of the greater circulation of the blood, dethroned the liver as the principal organ in the human body.

## THOMAS BARTHOLIN (1616–1680) *Historiarum anatomicarum rariorum* (The Hague, 1651)

The discoverer of the lymphatic system, Danish anatomist Thomas Bartholin, declared the end of the liver's role as 'ruler of the abdomen' and the death of the 'sanguine empire'. He decided that the role of



The cover of Glisson's *Anatomia hepatis*

the liver was to form bile rather than blood. He concluded with an epitaph, translated from the Latin as: 'The liver, which secured grandeur of name by tradition and has kept it by repute. It has been digesting for so long that at last, by a cruel command, it has digested itself away. Go, traveller, without bile, and leave bile to the liver so that you may digest well without it. Pray for it.'

## JOHN BROWNE (BORN 1642) *A remarkable account of a liver, appearing glanulous to the eye* (London, 1685)

John Browne was physician to Charles II, James II and William III, and surgeon to St Thomas' Hospital, London. In the above letter to the Royal Society he gave the first clear description of cirrhosis of the liver. 'Upon opening the body, I believe I took out about 24 quarts of water... the liver, which now I am going to describe ... consisted in its concave, convex, and inward parts of glands,

which (with the vessels) made up the whole substance thereof, these glands contained a yellowish ichor, like so many pustulae, and was I suppose part of the bilious humor lodged in the same.'

## MATTHEW BAILLIE (1761–1823)

*A series of engravings ... to illustrate the morbid anatomy*  
(London, 1803)

Matthew Baillie's study of morbid anatomy was the first English text on pathology, and the first systematic work in any language. For the first time pathology was treated as an independent science. Although cirrhosis of the liver had been described by Browne more than 100 years before, Baillie was the first to link the disease with the excessive consumption of alcohol.

## GEORGE BUDD (1808–1882) *On diseases of the liver* (London, 1845)

While serving as physician to the hospital ship the *Dreadnaught* at Greenwich, George Budd had studied the high incidence of stomach and liver disease among sailors returning from the tropics. These experiences became the basis for this classic work, which was published when Budd was professor of medicine at King's College, London, and includes his description of the liver condition known as 'Budd-Chiari Syndrome'.

## SHEILA SHERLOCK (1918–2001) *Diseases of the liver and biliary system* (Oxford, 1955)

Sheila Sherlock was the first woman in the UK to be appointed professor of medicine, and for decades was the world's foremost hepatologist. The first edition of her classic work on diseases of the liver was published in 1955. The 11th edition was published just two weeks before her death.