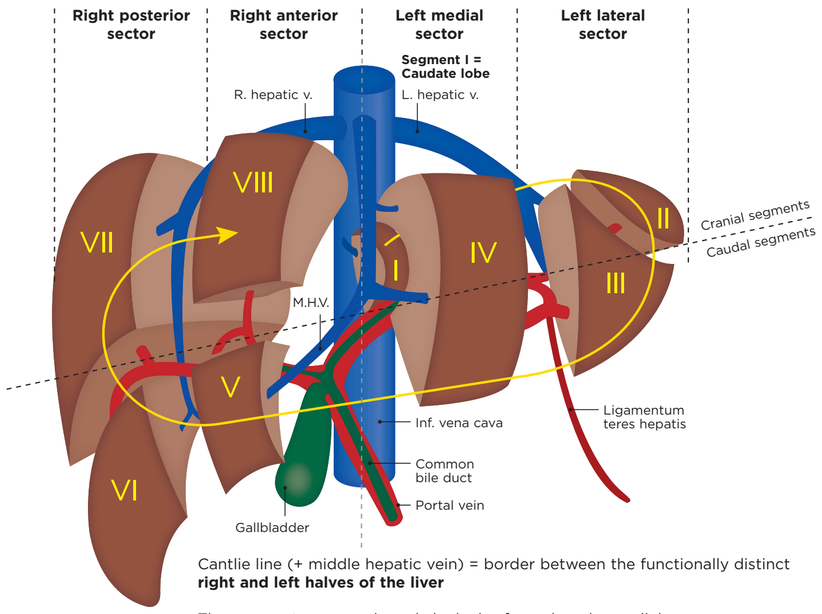
SEGMENT DISTRIBUTION IN THE LIVER

ULTRASONOGRAPHIC IMAGING

The anatomic division of the liver consists of a larger right and a smaller left hepatic lobe, whose boundaries are defined by the falciform ligament and the fissure of the ligamentum teres and ligamentum venosum.

Parallel to the increasing importance of liver surgery, ultrasonographic imaging of the liver has also taken into account the division of the liver into segments based on the dichotomous division of the branches of the portal vein, the hepatic arteries and the bile ducts (primarily from Couinaud 1957, modified by Bismuth 1982).

Thus, we distinguish right and left halves of the liver, each of which is further subdivided into so-called sectors, including a left lateral sector encompassing the left hepatic lobe, a left medial sector which contains to the quadrate lobe, and a right posterior and right anterior sector. The caudate lobe corresponds to segment I.



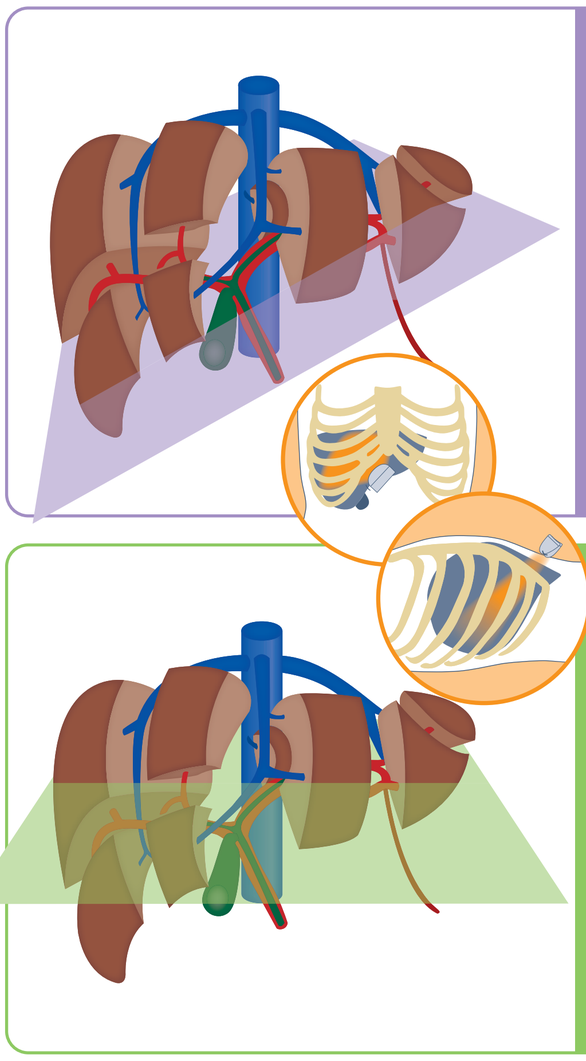
Cantlie line (+ middle hepatic vein) = border between the functionally distinct **right and left halves of the liver**

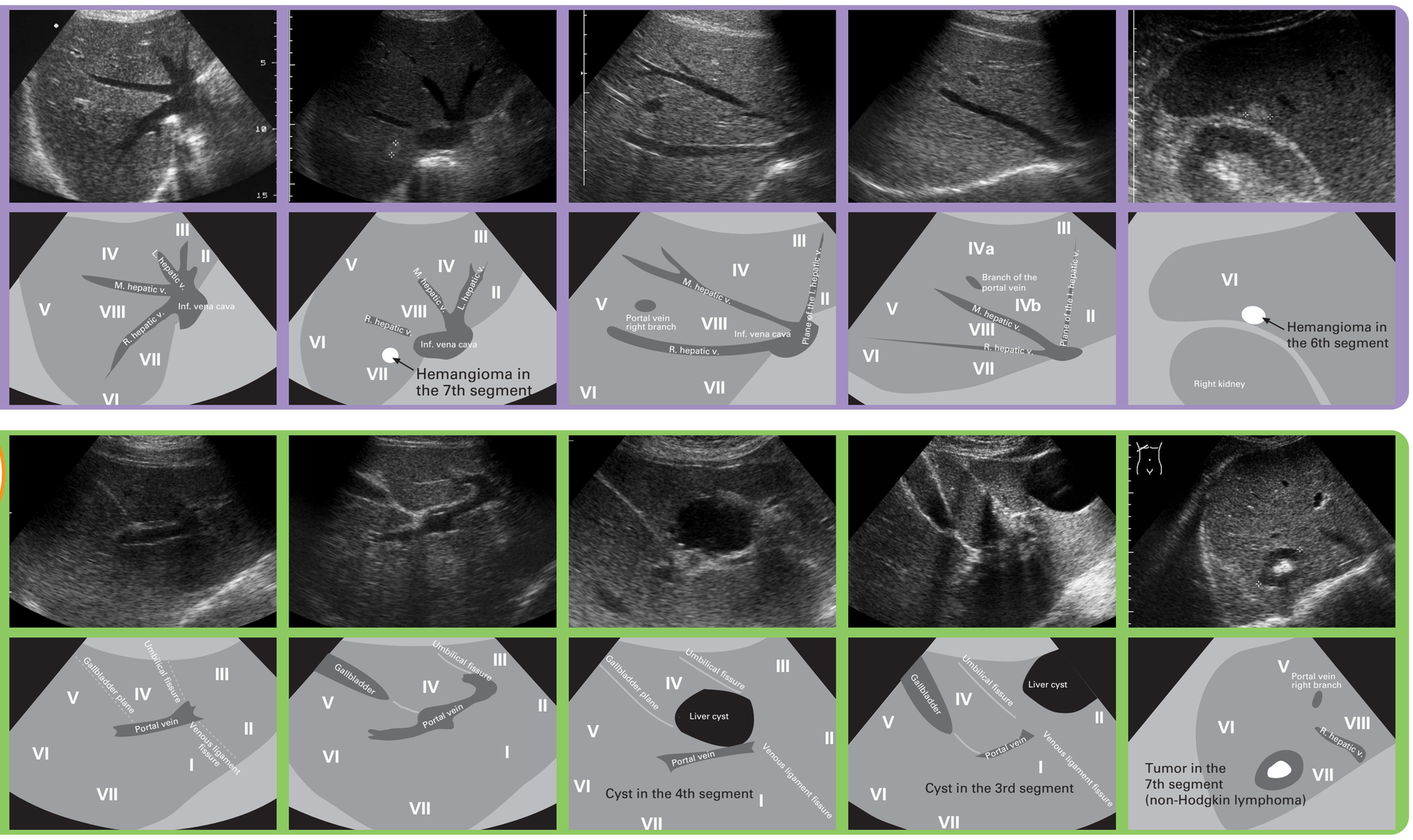
The hepatic veins receive blood independently of segment allocation. The main branches of the hepatic veins form the functional boundaries between the sectors. The ligamentum teres hepatis, as an exception, forms the boundary between the left medial and the left lateral sector, and the left hepatic vein, with numerous variations, separates segment II from segment III.

Conversely, the branches of the portal vein do not form intrahepatic anastomoses, and together with the branches of the hepatic arteries and the bile ducts form the portal triads.

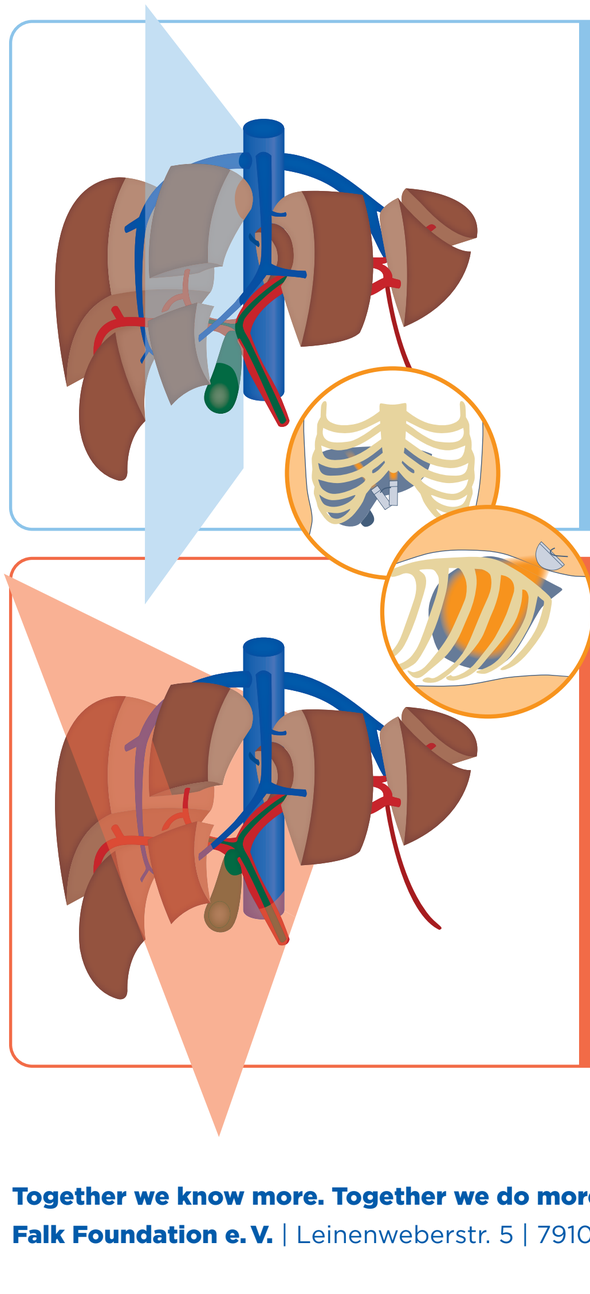
The segments are numbered clockwise from dorsal – medial.

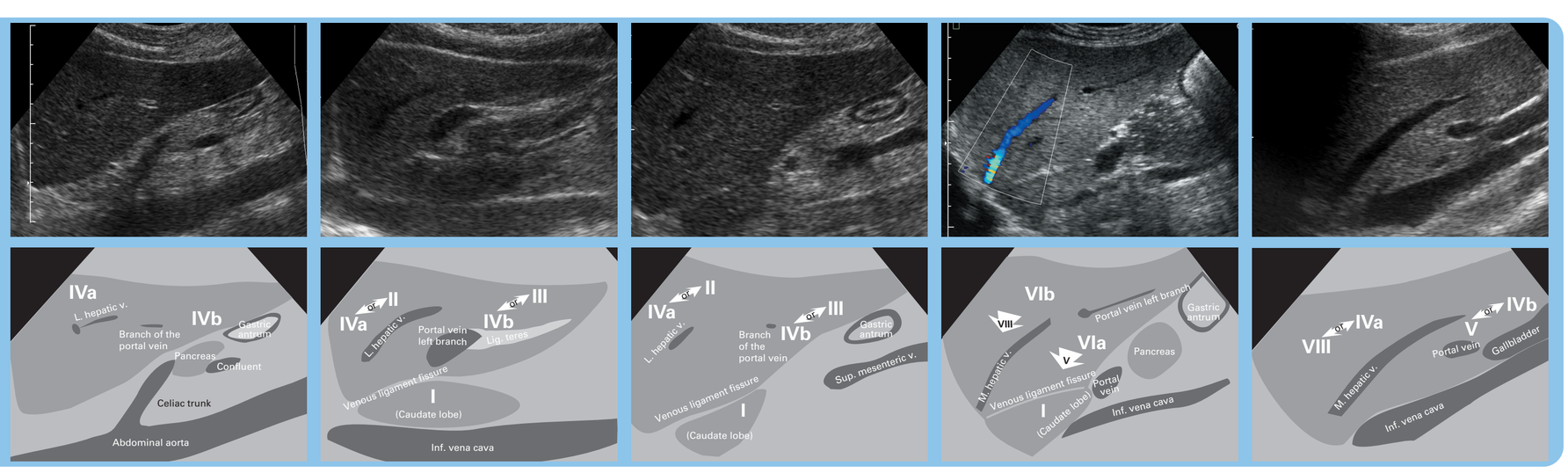
UPPER ABDOMINAL TRANSVERSE AND SUBCOSTAL SLICES, RIGHT

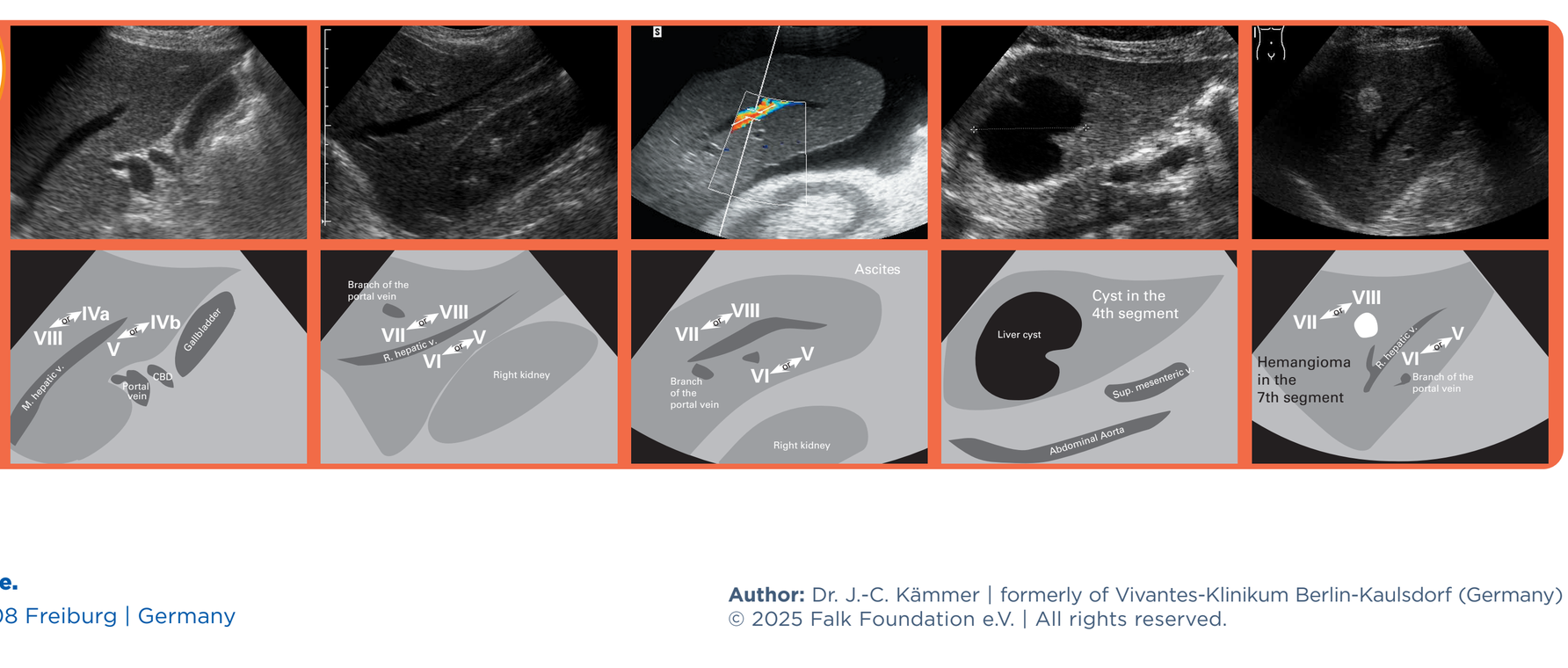




INTERCOSTAL AND LATERAL SLICES, RIGHT







Together we know more. Together we do more.

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