the CSF glycoprotein level was significantly elevated in 33 per cent of the group. Therefore, an increased CSF pressure and glycoprotein level are not specific for neurological disease and should not, of themselves, suggest neurological disease in a patient with heart failure. (*Green, J. B., and others: Cerebrospinal Fluid Protein and Glycoprotein Levels in Congestive Heart Failure, J. A. M. A. 167: 1491 (July 19) 1958.*)

CIRCULATION TIME By measuring the time from injection of succinylcholine until fasciculations appear in the palpebral or platysmal muscles, the anesthesiologist can determine the circulation time. In 26 apparently good risk adult patients the average was 22 seconds with a range of 15 to 32 seconds. This may detect an impending or early congestive cardiac failure. (*Glover, N., and Marcus, P. S.: Drug Reaction Times During Surgery and Anesthesia, South. M. J. 51: 478 (April) 1958.*)

OXYGEN CONSUMPTION Oxygen consumption in dogs during extracorporeal circulation at low flow rates (20–30 ml./kg./minute) was reduced to about 50 per cent of control levels. Oxygen consumption rose with increasing flow, reaching control levels at flow rates of about 100 ml./kg./minute. The relation of oxygen consumption during extracorporeal circulation to decreasing flow rate is similar to the relation of oxygen consumption to reduced cardiac output. The decline in oxygen consumption at low rates of flow appeared primarily due to decreased circulatory rate rather than to the concomitant fall in arterial blood pressure. The arterial saturation fell progressively with increasing flow rates with oxygenators of limited capacity or with subjects too large for the capacity of the oxygenator. (*Anderson, M. N., and Semning, A.: Studies in Oxygen Consumption During Extracorporeal Circulation with Pump-Oxygenator, Ann. Surg. 148: 59 (July) 1958.*)

PERIPHERAL BLOOD FLOW Biphasic velocity flow patterns in the human forearm were measured utilizing an Evans blue dye technique. Local hyperemia produced by intra-arterial injection of tolazoline, reactive hyperemia, or local exercise increased the flow and volume in the rapid component relative to that in the slow component. Venous congestion resulted in marked but proportionate prolongations of circulation times. The relative flows and volumes of the two components were not significantly changed. Intra-arterial infusion of epinephrine or norepinephrine and systemic administration of epinephrine produced no obvious changes in these parameters. Systemic infusion of norepinephrine produced characteristic changes indicating a relative increase in blood flow of the rapid component. This was probably due to hypertension plus vasoconstriction occurring in response to significant elevation of mean pressure. These data suggest that the biphasic system of forearm blood flow and volume is dynamic, the relative proportion of the rapid and slow components changing with appropriate stimuli. (*Freis, E. D., and Schnaper, H. W.: Effects of Variety of Hemodynamic Changes on Rapid and Slow Components of Circulation in Human Forearm, J. Clin. Invest. 37: 838 (June) 1958.*)

IMPACT PULSE WAVES The relationship between the velocity of induced waves and arterial blood pressure has been explored in the living human brachial artery. At lower pressures, the propagation velocity of these waves increases with age. This is not evident at higher pressures, suggesting that in older subjects there is an initially greater resistance to transverse stretch, but the change in elastic properties induced by stretch is less than it is in young arteries. The artery in older subjects behaves as if its fibers were initially more completely extended. (*Landowne, M.: Relations Between Intra-arterial Pressure and Impact Pulse Wave Velocity with Regard to Age and Arteriosclerosis, J. Gerontology 13: 153 (April) 1958.*)

BLOOD BRAIN BARRIER Experiments were carried out on rabbits and cats. As tracers radioactive phosphorus (P^{32}), sulphur (S^{35}), penicillin and radioactive iodine (I^{131}) were used. More than 100 experiments showed that the blood-brain barrier occupies the primary place on account of its pronounced barrier properties; the hematolabyrinthine, hematoophthalmic, hematoplacental, and hematosynovial bar-