other: Reoperation After Resuscitation from Cardiac Arrest, Surg. Gynec. & Obst. 106: 207 (Feb.) 1958.)

COOPERATION In attempting to avoid cardiac arrest the surgeon can cooperate with the anesthetist in many ways. He can avoid hurrying the induction of anesthesia because haste leads to rapid administration of agents and rough manipulations. He can see that ventilation is not hindered by tight dressings or casts, leaning on the patient's chest, allowing the accumulation of instruments or supplies on the patient's chest, or using large packs or retractors in the upper abdomen. He will not insist on positions of the patient which are unfavorable to the safe conduct of the anesthesia. He can avoid air leaks while closing a bronchus by use of "cut and sew" technique. He should not urge a hasty or premature removal of the patient from the operating room at the end of the operation. *(Keeley, J. L., Schairer, A. E., and Carroll, J. P.: Cardiac Arrest in Surgical Patients, S. Clin. North America 38: 55 (Feb.) 1958.)*

EXPERIMENTAL HEART The transplanted heart of warm-blooded animals is able to function in another's organism from 30–40 minutes onwards, up to 30 days, dying off gradually, depending on the magnitude of the biochemical differences with the recipient's organism. The author points out that the animal with two hearts, the "humoral" and the "neurohumoral," could serve as an excellent object for a comparative analysis of the central and peripheral actions of the cardiac drugs. To solve successfully the problem of homotransplantation in warm-blooded animals it is necessary to consider the positive influence of the central nervous system and of the environment as established in the experiments on the cold-blooded animals. *(Sinitsyn, N. P.: Experimental Transplantation of Heart, Vestn. Khir. 7: 28, 1956.)*

CLINICAL "BYPASS" PROBLEMS The problem of pulmonary hypertension is serious as there are many patients whose hearts can be repaired but whose pulmonary vessels cannot. Despite the useful concept of the high-resistance with high flow reserve and the high-resistance with low flow reserve lungs, pulmonary biopsy does not give a good basis for deciding operability. In ventricular septal defects if the shunt is small because of right ventricular hypertension and pulmonary vascular changes, surgical treatment is hazardous and the results unpredictable. Any patient who has or has had heart failure or has atrial fibrillation receives full doses of digitalis preoperatively. Mortality, criteria for cure and use of the artificial pacemaker are discussed. This article is a must for anyone interested in this field. *(Burchell, H.: Clinical Problems Related to Surgical Repair of Intracardiac Defects with Aid of Extracorporeal Pump-Oxygenator, Circulation 16: 976 (Dec.) 1957.)*

HEART-LUNG MACHINE The machine is composed of an arterial pump, an oxygenator, a pump for suction of coronary sinus blood. The arterial pump produces a pulsating type of flow, is able to deliver an output close to the normal cardiac output and causes very little hemolysis of the blood. The oxygenator is a rotating cylinder limited by an artificial membrane; inside this cylinder an aerosol of saline is injected in which oxygen is dissolved; outside the cylinder is the blood which becomes oxygenated by diffusion through the membrane of the oxygen dissolved in the aerosol. The whole oxygenator is sterilized with ozone for one hour; three liters of blood are necessary to prime the apparatus for large cardiac outputs. It has been used successfully in man for intracardiac surgery. *(Thomas, J. A.: Heart-Lung Machine with Membrane Oxygenator, C. rend. Acad. Sc. 246: 1081 (Feb.) 1958.)*

SYMPATHETIC NEUROHORMONE Sympathetic nerves and ganglia incubated with tyrosine or dopa synthesized hydroxytyramine and norepinephrine but only questionable amounts of epinephrine. The neurohormone of sympathetic nerves is norepinephrine. Epinephrine, if present, is of questionable importance. *(Goodall, Mc.C., and Kirshner, N.: Biosynthesis of*