〔J. Urol., **146**, 57-60 (1991)〕 [Lab. of Pharmaceutics]

The role of alkaline phosphatase isoenzymes as tumor markers for testicular germ cell tumors.

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The role of serum alkaline phosphatase as a tumor marker for testicular germ cell disease was investigated in 26 patients with testicular seminoma and 13 with nonseminomatous germ cell testis tumors. Placental alkaline phosphatase-like enzyme was elevated in 50% of the stage I seminoma patients and in all patients with stages II to III disease. In addition, liver (tissue unspecific) alkaline phosphatase was elevated in 10 and 83% of the patients, respectively. Lactic dehydrogenase and β-human chorionic gonadotropin (β-HCG) were detected in 50 to 60% of the patients with stage I seminoma.

〔Blood, **77**, 113-120 (1991)〕 [Lab. of Pharmaceutics]

Studies on anti-von Willebrand factor (vWF) monoclonal antibody NMC-4, which inhibits both ristocetin- and botrocetin-induced vWF binding to platelet glycoprotein Ib.

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Anti-von Willebrand factor (vWF) monoclonal antibody NMC-4 completely inhibited vWF binding to platelet glycoprotein (GP) Ib induced by either ristocetin or botrocetin at an IgG concentration of ~10 μg/mL, and also blocked binding of asialo-vWF to GP Ib. Amino acid residues 512 through 673 of the vWFsubunit are involved in botrocetin-induced vWF binding.

〔Biochemistry, **30**, 1957-1964 (1991)〕 [Lab. of Pharmaceutics]

Isolation and chemical characterization of two structurally and functionally distinct forms of botrocetin, the platelet coagglutinin isolated from the venom of *Bothrops jararaca*.

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Two distinct forms of botrocetin, the von Willebrand factor (vWF)-dependent platelet coagglutinin isolated from the snake venom of *Bothrops jararaca,* were purified and characterized structurally and functionally. The apparent molecular mass of the one-chain botrocetin was 28 kDa before and 32 kDa after reduction of disulfide bonds, while that of the two-chain botrocetin was 27 kDa before and 15/14.5 kDa after reduction. On a weight basis, the two-chain botrocetin was 34 times more active than the one-chain form in promoting vWF binding to platelets.