

# The regulation of factor Xa generation at tissue factor bearing surfaces

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## The Regulation of Factor Xa Generation at Tissue Factor Bearing Surfaces

van Irene Salemink

- 1 Phosphatidylserine containing membranes accumulate tightly bound FXa:TFPI<sub>FL</sub> complexes that remain inhibitory active towards TF:FVIIa catalyzed FX activation.
  - This thesis
  
- 2 The presence of phosphatidylserine in the membrane surrounding TF:FVIIa has a stronger stimulatory effect on the rate of TF:FVIIa mediated FX activation than on the rate of inhibition of TF:FVIIa by FXa:TFPI. This difference in sensitivity of both reactions to the presence of PS is important for the regulation of TF:FVIIa mediated FX activation.
  - This thesis
  
- 3 An as yet not discerned procoagulant effect of anti-β<sub>2</sub>-glycoprotein I antibodies, *acting by interference with the inhibition of TF:FVIIa by TFPI*, suggests that in plasma the TFPI inhibitory activity is strongly stimulated by PS in the TF bearing membrane.
  - This thesis
  - Pengo V, Brocco T, Biasiolo A, Rampazzo P, Carraro P and Zamarchi R (1999) Procoagulant effect of anti-β<sub>2</sub>-glycoprotein I antibodies with lupus anticoagulant activity. Blood 94, 3814-19.
  
- 4 It is unlikely that Ras effectors are involved in the regulation of the Ras activation by guanine nucleotide exchange factors.
  - Giglione C and Parmeggiani A (1998) Raf-1 is involved in the regulation of the interaction between guanine nucleotide exchange factor and Ha-Ras. Evidence for a function of Raf-1 and phosphatidylinositol 3-kinase upstream to Ras. J Biol Chem 273, 24373-47.

- 5 The suggestion of Camire et al that a membrane component expressed by thrombin activated platelets is involved in the protection of plasma- and platelet-derived FVa from APC catalyzed inactivation is not supported by experimental data.
- Camire RM, Kalafatis M, Simioni P, Girolami A and Tracy PB (1998) Platelet derived factor Va/Va<sup>Leiden</sup> cofactor activities are sustained on the surface of activated platelets despite the presence of activated protein C. *Blood* 91, 2818-29.
  - Heemskerk JWM, Vuist WMJ, Feijge MAH, Reutelingsperger CPM and Lindhout T (1997) Collagen but not fibrinogen surfaces induce bleb formation, exposure of phosphatidylserine, and procoagulant activity of adherent platelets: evidence for regulation by protein tyrosine kinase-dependent Ca<sup>2+</sup> responses. *Blood* 90, 2615-25.
  - Bevers EM, Comfurius P and Zwaal RFA (1983) Changes in membrane phospholipid distribution during platelet activation. *Biochim Biophys Acta* 736, 57-66.
- 6 In contrast to what the title of the paper suggests, Blott et al clearly show that the nucleotide-binding domains of the multidrug transporter Pgp are not extracellularly accessible.
- Blott EJ, Higgins CF and Linton KJ (1999) Cysteine-scanning mutagenesis provides no evidence for the extracellular accessibility of the nucleotide-binding domains of the multidrug resistance transporter P-glycoprotein. *EMBO J* 18, 6800-8.
- 7 An oversimplified experimental design in the study of Baugh et al on the TFPI-dependent regulation of extrinsic pathway FXa formation produces an overly complicated model.
- Baugh RJ, Broze GJ Jr and Krishnaswamy S (1998) Regulation of extrinsic pathway factor Xa formation by tissue factor pathway inhibitor. *J Biol Chem* 273, 4378-86.
  - Lindhout T, Franssen J and Willems GM (1995) Kinetics of the inhibition of tissue factor:factor VIIa by tissue factor pathway inhibitor. *Thromb Haemost* 74, 910-5.
- 8 An extreme form of 'consumptive coagulopathy' is employed by vampire bats.
- 9 De invoering van de Euro zal leiden tot een devaluatie van de nederlandse taal.
- 10 Met het vorderen van het proefschrift neemt ook de kennis van het assortiment in magnetron maaltijden toe.
- 11 Toenemend inzicht in de *bloedstolling* maakt het mogelijk deze steeds beter te beheersen. Helaas geldt dit niet voor *bloedvergieten*.