APTAMERI ANTI VWF

NH2-mGmGmGmAmCmCmUmAmAmGmAmCmAmCmAmUm
GmUmCmCmC-3T

NH2 = hexylamine linker,
3T inverted deoxythymidine residue

ARC15105

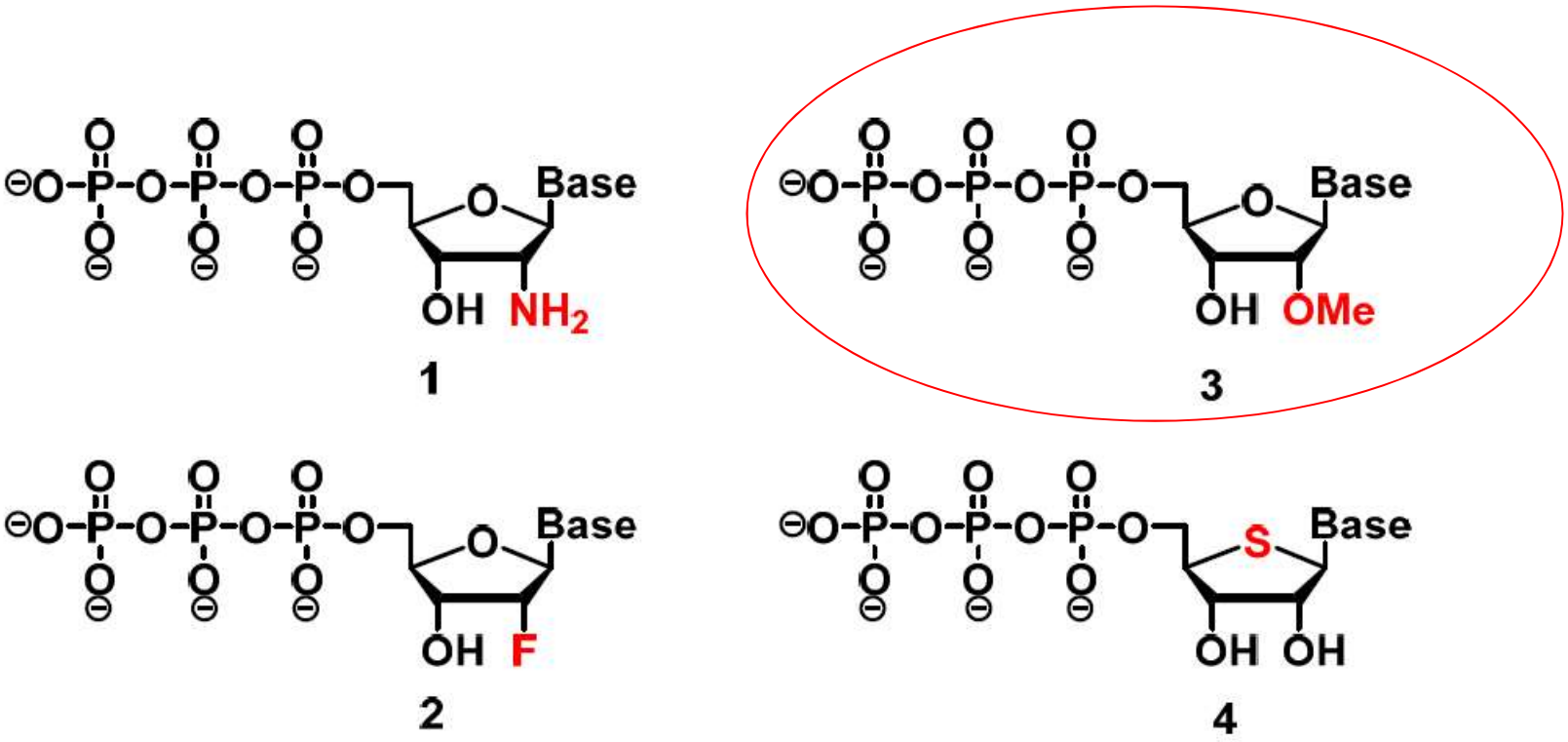
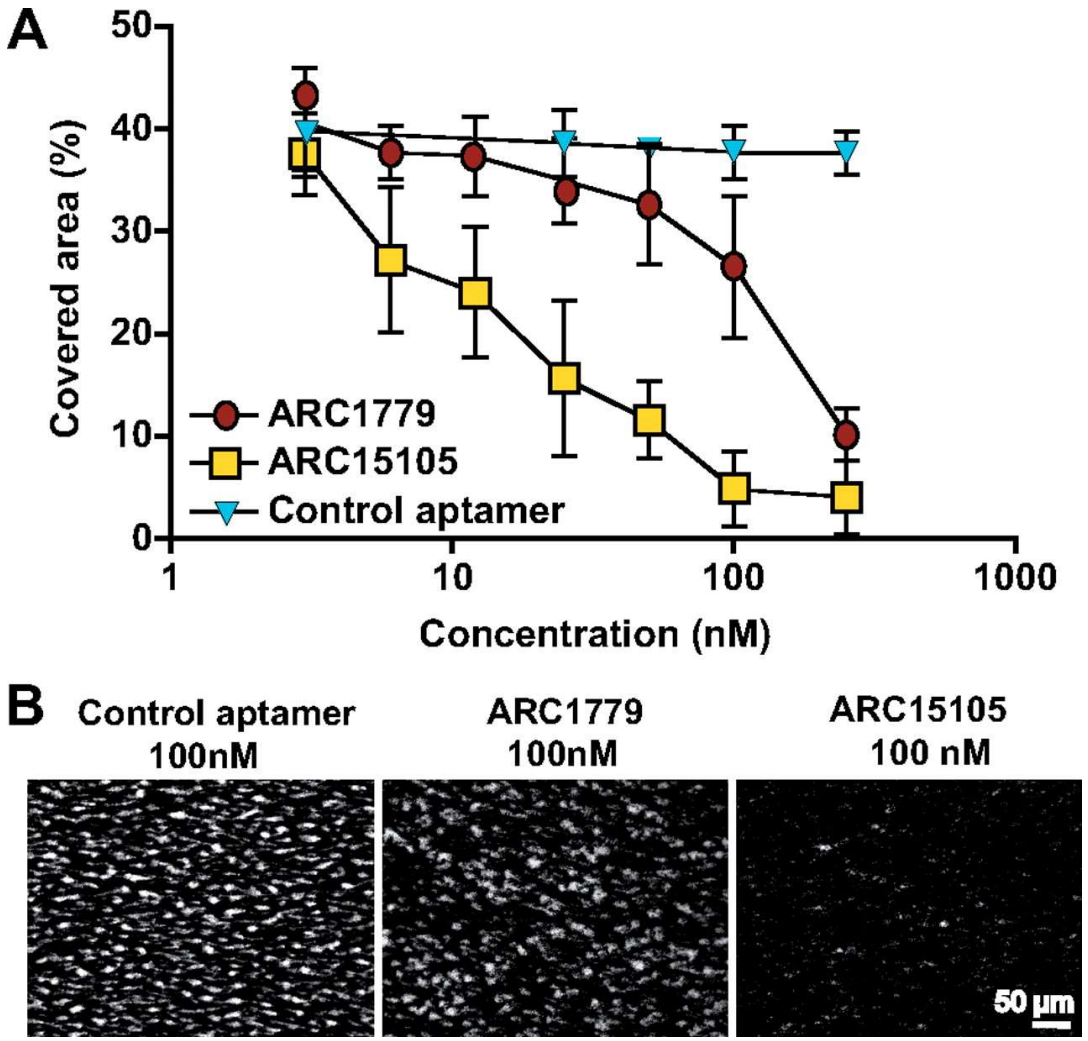


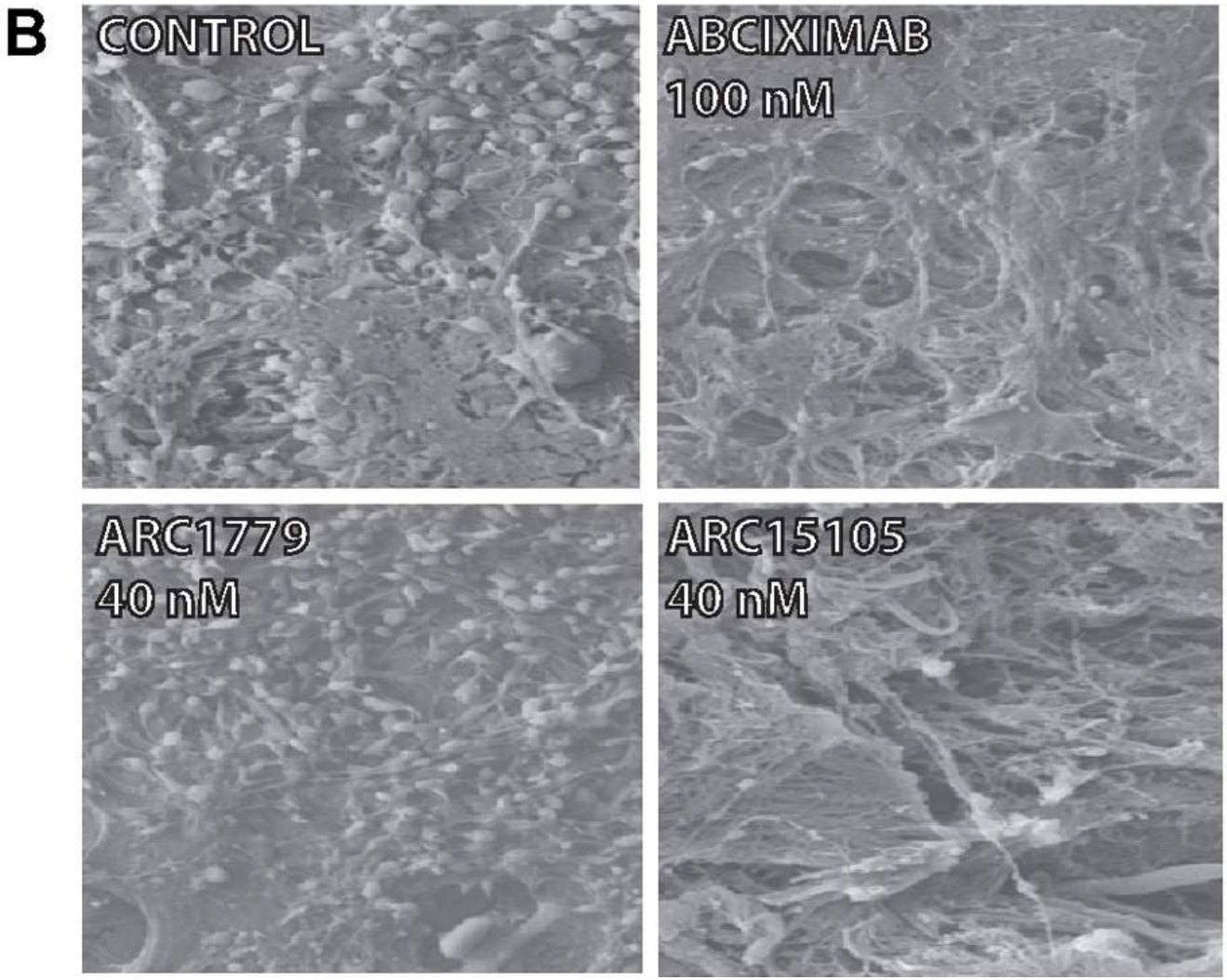
Figure 2. Chemical structures of 2′-modified nucleotides used in selection experiments to generate aptamers with enhanced pharmacokinetic properties: 2′-amino-NTPs **1**, 2′-fluoro-NTPs **2**, 2′-methoxy-NTPs **3**, and 4′-thio-NTPs **4**.

Concentration effect curve of ARC15105 and ARC1779 on platelet adhesion to collagen-bound VWF under arterial shear conditions.



Siller-Matula J et al. Arterioscler Thromb Vasc Biol 2012;32:902-909

Platelet adhesion on injured porcine arterial segments; A, ARC15105, Arc1779, and abciximab inhibited the adhesion of platelets radiolabeled with 111In on injured porcine arterial segments in perfusion flow chambers.



Siller-Matula J et al. Arterioscler Thromb Vasc Biol 2012;32:902-909

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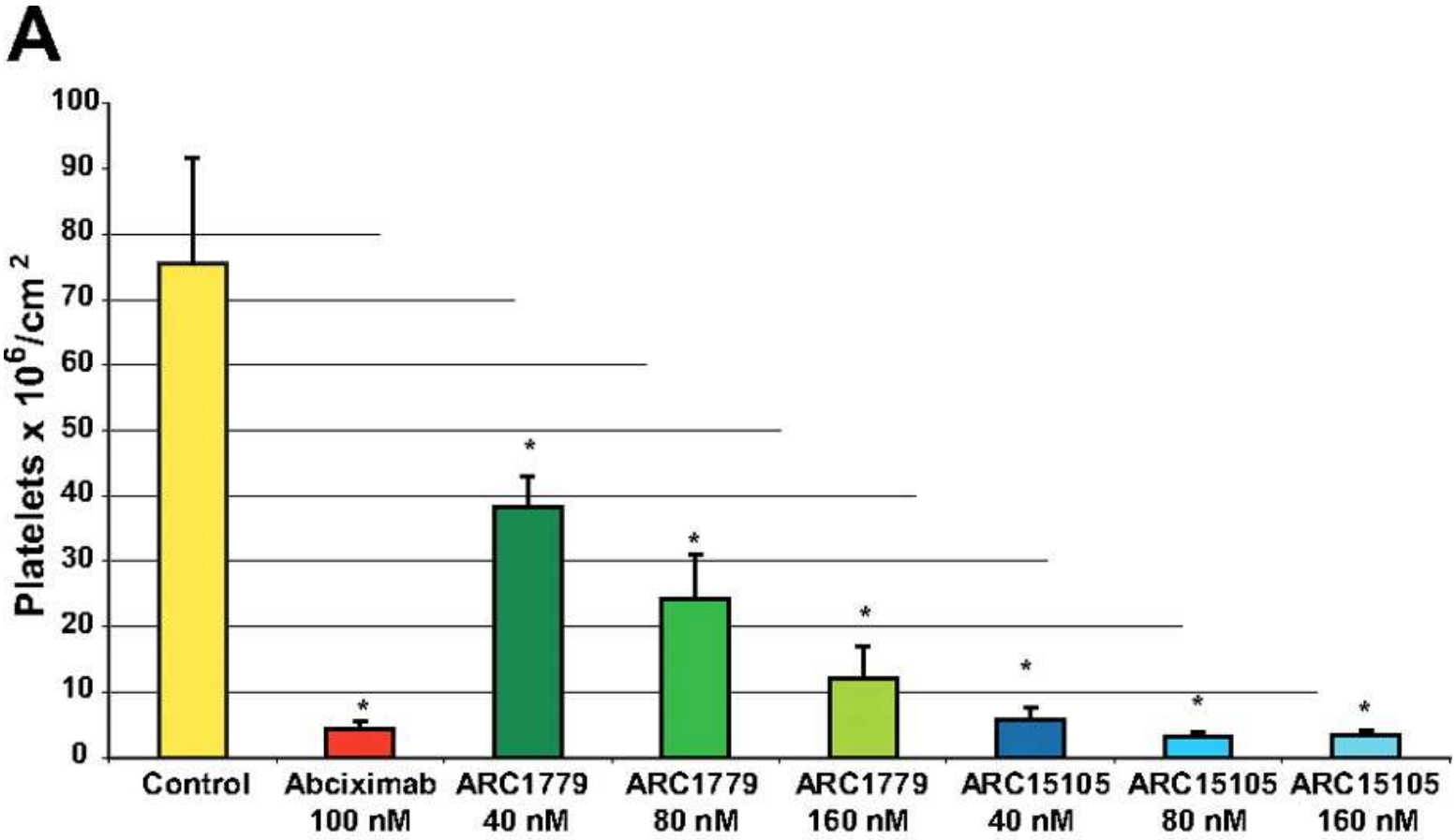
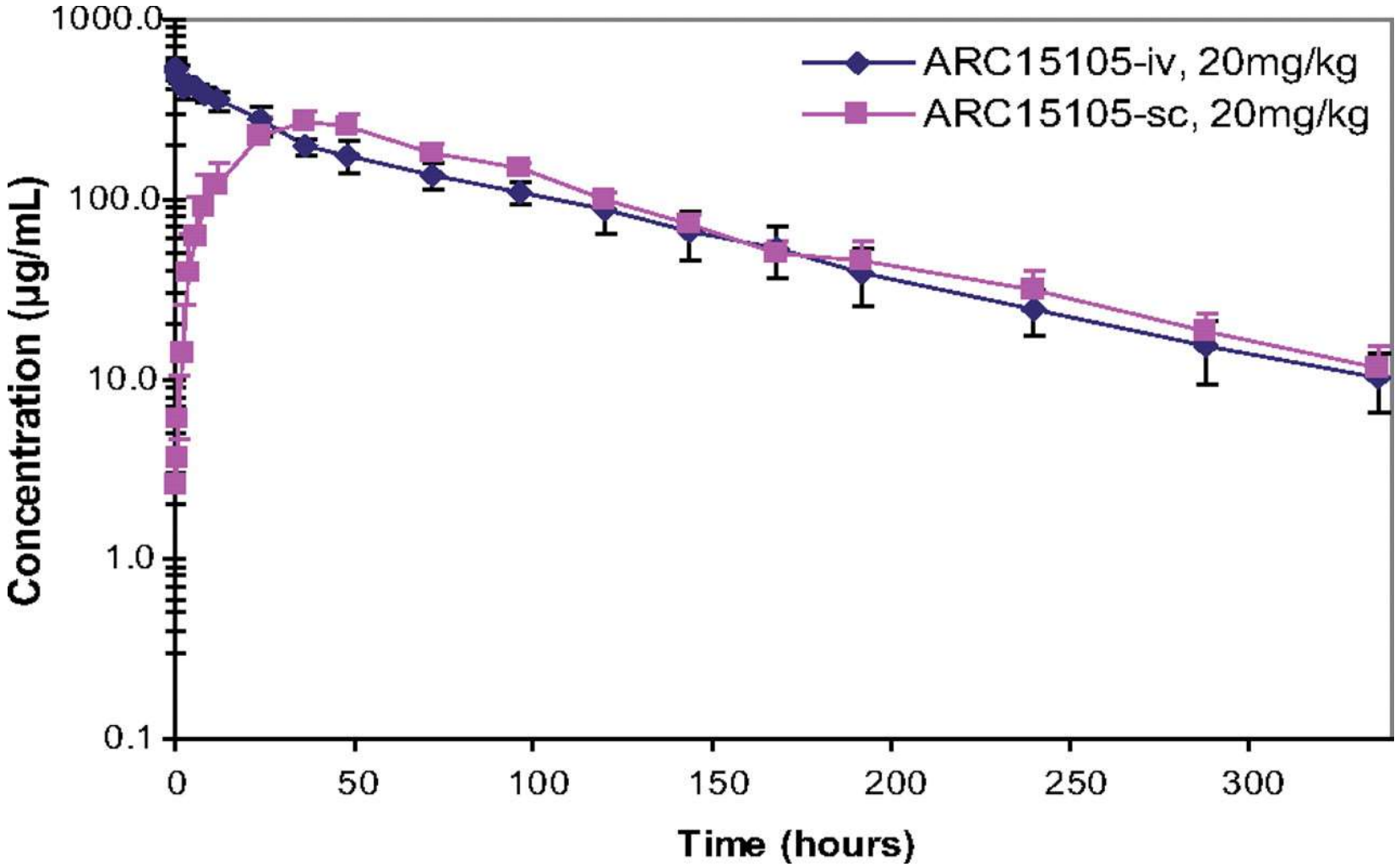


Siller-Matula J et al. Arterioscler Thromb Vasc Biol 2012;32:902-909

Comparison of the pharmacokinetics of a single bolus of ARC15105 (20 mg/kg) administered intravenously (IV) and subcutaneously (SC) in 3 cynomolgus monkeys; P<0.05.



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American Heart Association
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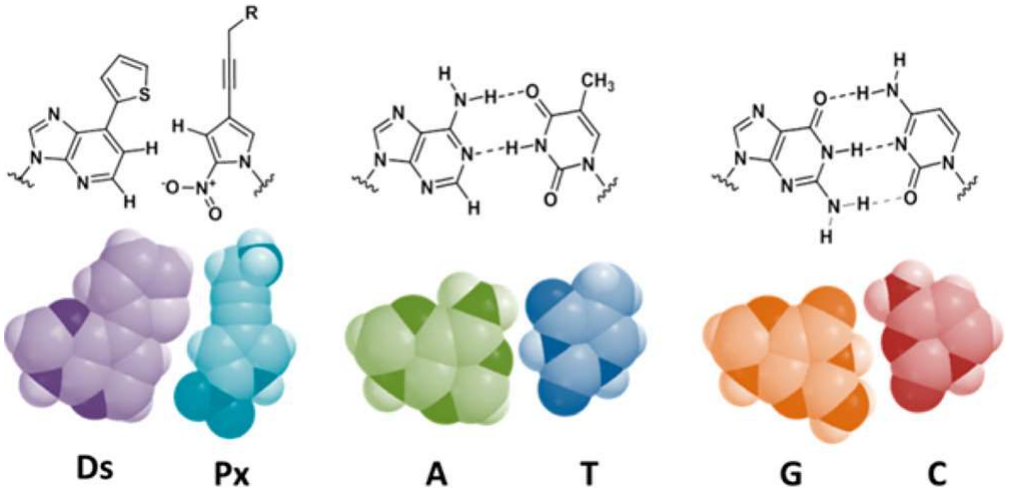
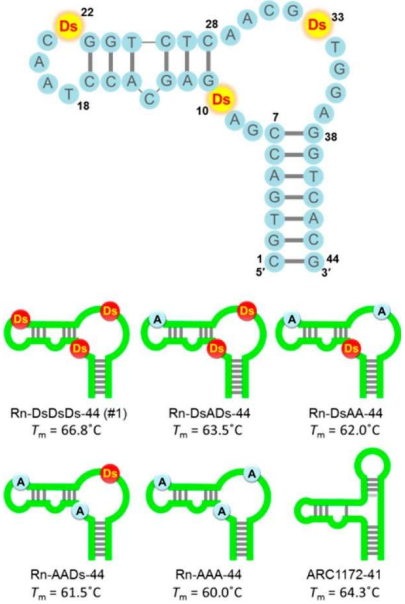
Target
Selection
ExSELEX
PCR
Target
DNA aptamer
Stabilization
Five-base library
Unnatural base system
Optimized
DNA aptamer



Chemical structures of the unnatural Ds–Px and natural A–T and G–C pairs.

Published in: Ken-ichiro Matsunaga; Michiko Kimoto; Ichiro Hirao; *J. Am. Chem. Soc.* **2017,** 139, 324-334.
DOI: 10.1021/jacs.6b10767



Schematic illustration of the secondary structures of the anti-vWF unnatural-base DNA aptamer, Rn-DsDsDs-44, and its variants. The sequence and presumed se

Published in: Ken-ichiro Matsunaga; Michiko Kimoto; Ichiro Hirao; *J. Am. Chem. Soc.* **2017,** 139, 324-334.
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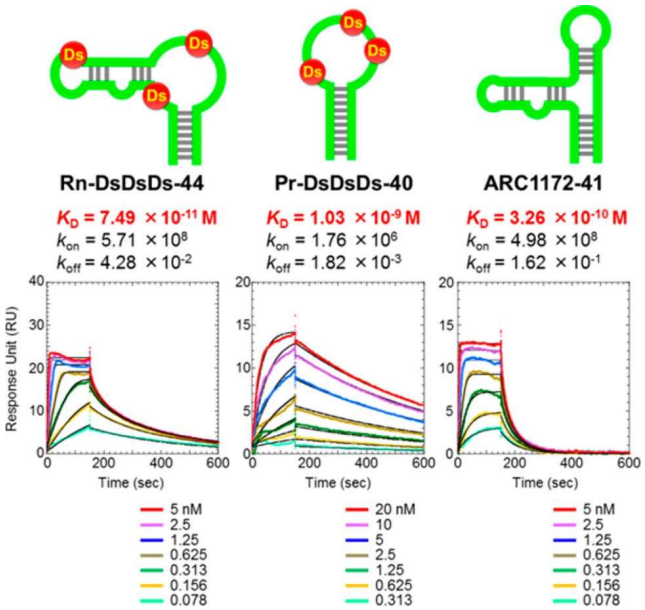

Binding analysis of anti-vWF DNA aptamers by a BIAcore T200 at 37 ° C, using 0.078 to 5 nM vWF. The aptamers were biotinylated at their 5′-termini.

Published in: Ken-ichiro Matsunaga; Michiko Kimoto; Ichiro Hirao; *J. Am. Chem. Soc.* **2017,** 139, 324-334.
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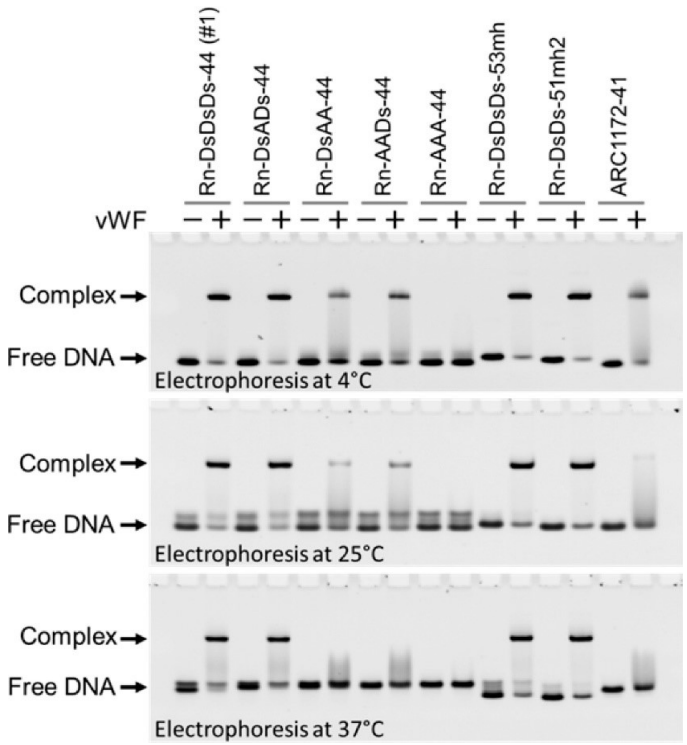

Binding analysis of each Rn-DsDsDs-44 aptamer variant by a gel mobility shift assay.
Each aptamer variant (5′-biotinylated, 100 nM) was incubated with vWF (100 nM) at 37 ° C for 30 min, and the complexes were separated from the free DNA on 8% polyacrylamide gels containing 3 M urea with electrophoresis at 4 (upper panel), 25 (middle panel), or 37 ° C (lower panel).
The DNA bands on the gels were stained with SYBR Gold.