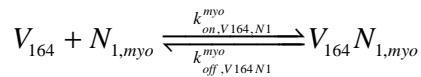
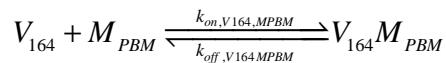
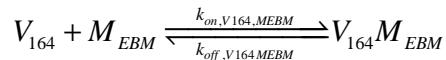
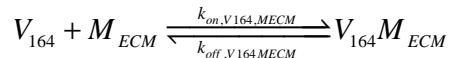


Text S1

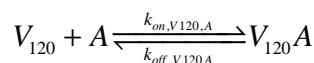
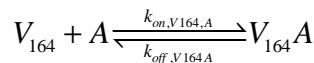
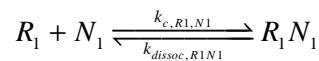
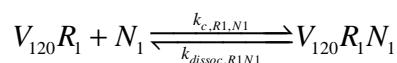
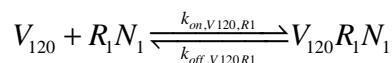
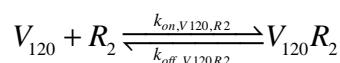
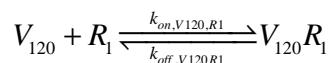
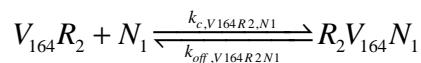
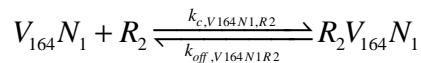
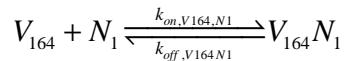
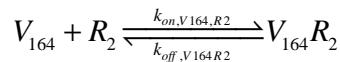
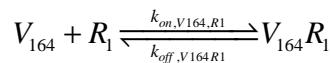
Chemical reactions

The relevant chemical reactions are presented here (molecular species and parameters are defined in the glossary):

Tissue



Tissue and blood



Equations

The complete list of ordinary differential equations is presented below:

$$\begin{aligned}
\frac{d[V_{164}]_N}{dt} = & q_{V164}^N - k_{on,V164,MEBM}^N [V_{164}]_N [M_{EBM}]_N + k_{off,V164,MEBM}^N [V_{164} M_{EBM}]_N \\
& - k_{on,V164,MPBM}^N [V_{164}]_N [M_{PBM}]_N + k_{off,V164,MPBM}^N [V_{164} M_{PBM}]_N \\
& - k_{on,V164,MECM}^N [V_{164}]_N [M_{ECM}]_N + k_{off,V164,MECM}^N [V_{164} M_{ECM}]_N \\
& - k_{on,V164,R1}^N [V_{164}]_N [R_1]_N + k_{off,V164,R1}^N [V_{164} R_1]_N \\
& - k_{on,V164,R2}^N [V_{164}]_N [R_2]_N + k_{off,V164,R2}^N [V_{164} R_2]_N \\
& - k_{on,V164,N1}^N [V_{164}]_N [N_1]_N + k_{off,V164,N1}^N [V_{164} N_1]_N \\
& - k_{on,V164,N1}^{N,myo} [V_{164}]_N [N_1]_{N,myo} + k_{off,V164,N1}^{N,myo} [V_{164} N_1]_{N,myo} \\
& - k_{on,V164,A}^N [V_{164}]_N [A]_N + k_{off,V164,A}^N [V_{164} A]_N \\
& - \left(\frac{k_L + k_{pV}^{NB} S_{NB}}{U_N} \right) \frac{[V_{164}]_N}{K_{AV,N}} + k_{pV}^{BN} \frac{S_{NB}}{U_N} \frac{U_B}{U_P} [V_{164}]_B
\end{aligned} \tag{S.1}$$

$$\begin{aligned}
\frac{d[V_{120}]_N}{dt} = & q_{V120}^N - k_{on,V120,R1}^N [V_{120}]_N [R_1]_N + k_{off,V120,R1}^N [V_{120} R_1]_N \\
& - k_{on,V120,R1N1}^N [V_{120}]_N [R_1 N_1]_N + k_{off,V120R1N1}^N [V_{120} R_1 N_1]_N \\
& - k_{on,V120,R2}^N [V_{120}]_N [R_2]_N + k_{off,V120R2}^N [V_{120} R_2]_N \\
& - k_{on,V120,A}^N [V_{120}]_N [A]_N + k_{off,V120A}^N [V_{120} A]_N \\
& - \left(\frac{k_L + k_{pV}^{NB} S_{NB}}{U_N} \right) \frac{[V_{120}]_N}{K_{AV,N}} + k_{pV}^{BN} \frac{S_{NB}}{U_N} \frac{U_B}{U_P} [V_{120}]_B
\end{aligned} \tag{S.2}$$

$$\begin{aligned}
\frac{d[V_{164}]_B}{dt} = & -c_{V164} [V_{164}]_B - k_{on,V164,R1}^B [V_{164}]_B [R_1]_B + k_{off,V164R1}^B [V_{164} R_1]_B \\
& - k_{on,V164,R2}^B [V_{164}]_B [R_2]_B + k_{off,V164R2}^B [V_{164} R_2]_B \\
& - k_{on,V164,N1}^B [V_{164}]_B [N_1]_B + k_{off,V164N1}^B [V_{164} N_1]_B \\
& - k_{on,V164,A}^B [V_{164}]_B [A]_B + k_{off,V164A}^B [V_{164} A]_B \\
& - \frac{k_{pV}^{BN} S_{NB}}{U_p} [V_{164}]_B + \left(\frac{k_L + k_{pV}^{NB} S_{NB}}{U_B} \right) \frac{[V_{164}]_N}{K_{AV,N}}
\end{aligned} \tag{S.3}$$

$$\begin{aligned}
\frac{d[V_{120}]_B}{dt} = & -c_{V120}[V_{120}]_B - k_{on,V120,R1}^B[V_{120}]_B[R_1]_B + k_{off,V120R1}^B[V_{120}R_1]_B \\
& -k_{on,V120,R1N1}^B[V_{120}]_B[R_1N_1]_B + k_{off,V120R1N1}^B[V_{120}R_1N_1]_B \\
& -k_{on,V120,R2}^B[V_{120}]_B[R_2]_B + k_{off,V120R2}^B[V_{120}R_2]_B \\
& -k_{on,V120,A}^B[V_{120}]_B[A]_B + k_{off,V120A}^B[V_{120}A]_B \\
& -\frac{k_{pV}^{BN}S_{NB}}{U_p}[V_{120}]_B + \left(\frac{k_L + k_{pV}^{NB}S_{NB}}{U_B} \right) [V_{120}]_N \\
& K_{AV,N}
\end{aligned} \tag{S.4}$$

$$\frac{d[M_{EBM}]_N}{dt} = -k_{on,V164,MEBM}^N[V_{164}]_N[M_{EBM}]_N + k_{off,V164MEBM}^N[V_{164}M_{EBM}]_N \tag{S.5}$$

$$\frac{d[M_{PBM}]_N}{dt} = -k_{on,V164,MPBM}^N[V_{164}]_N[M_{PBM}]_N + k_{off,V164MPBM}^N[V_{164}M_{PBM}]_N \tag{S.6}$$

$$\frac{d[M_{ECM}]_N}{dt} = -k_{on,V164,MECM}^N[V_{164}]_N[M_{ECM}]_N + k_{off,V164MECM}^N[V_{164}M_{ECM}]_N \tag{S.7}$$

$$\frac{d[V_{164}M_{EBM}]_N}{dt} = k_{on,V164,MEBM}^N[V_{164}]_N[M_{EBM}]_N - k_{off,V164MEBM}^N[V_{164}M_{EBM}]_N \tag{S.8}$$

$$\frac{d[V_{164}M_{PBM}]_N}{dt} = k_{on,V164,MPBM}^N[V_{164}]_N[M_{PBM}]_N - k_{off,V164MPBM}^N[V_{164}M_{PBM}]_N \tag{S.9}$$

$$\frac{d[V_{164}M_{ECM}]_N}{dt} = k_{on,V164,MECM}^N[V_{164}]_N[M_{ECM}]_N - k_{off,V164MECM}^N[V_{164}M_{ECM}]_N \tag{S.10}$$

$$\begin{aligned}
\frac{d[R_1]_N}{dt} = & s_{R1}^N - k_{int,R1}^N[R_1]_N - k_{on,V164,R1}^N[V_{164}]_N[R_1]_N + k_{off,V164R1}^N[V_{164}R_1]_N \\
& -k_{on,V120,R1}^N[V_{120}]_N[R_1]_N + k_{off,V120R1}^N[V_{120}R_1]_N \\
& -k_{c,R1,N1}^N[N_1]_N[R_1]_N + k_{dissoc,R1N1}^N[R_1N_1]_N
\end{aligned} \tag{S.11}$$

$$\begin{aligned}
\frac{d[R_2]_N}{dt} = & s_{R2}^N - k_{int,R2}^N[R_2]_N - k_{on,V120,R2}^N[V_{120}]_N[R_2]_N + k_{off,V120R2}^N[V_{120}R_2]_N \\
& -k_{on,V164,R2}^N[V_{164}]_N[R_2]_N + k_{off,V164R2}^N[V_{164}R_2]_N \\
& -k_{c,V164N1,R2}^N[V_{164}N_1]_N[R_2]_N + k_{off,V164N1,R2}^N[R_2V_{164}N_1]_N
\end{aligned} \tag{S.12}$$

$$\begin{aligned}
\frac{d[N_1]_N}{dt} = & s_{N1}^N - k_{int,N1}^N [N_1]_N - k_{c,V120R1,N1}^N [V_{120}R_1]_N [N_1]_N + k_{dissoc,R1N1}^N [V_{120}R_1N_1]_N \\
& - k_{c,R1,N1}^N [N_1]_N [R_1]_N + k_{dissoc,R1N1}^N [R_1N_1]_N \\
& - k_{on,V164,N1}^N [V_{164}]_N [N_1]_N + k_{off,V164N1}^N [V_{164}N_1]_N \\
& - k_{c,V164R2,N1}^N [V_{164}R_2]_N [N_1]_N + k_{off,V164R2,N1}^N [R_2V_{164}N_1]_N
\end{aligned} \tag{S.13}$$

$$\begin{aligned}
\frac{d[R_1]_B}{dt} = & s_{R1}^B - k_{int,R1}^B [R_1]_B - k_{on,V164,R1}^B [V_{164}]_B [R_1]_B + k_{off,V164R1}^B [V_{164}R_1]_B \\
& - k_{on,V120,R1}^B [V_{120}]_B [R_1]_B + k_{off,V120R1}^B [V_{120}R_1]_B \\
& - k_{c,R1,N1}^B [N_1]_B [R_1]_B + k_{dissoc,R1N1}^B [R_N N_1]_B
\end{aligned} \tag{S.14}$$

$$\begin{aligned}
\frac{d[R_2]_B}{dt} = & s_{R2}^B - k_{int,R2}^B [R_2]_B - k_{on,V120,R2}^B [V_{120}]_B [R_2]_B + k_{off,V120R2}^B [V_{120}R_2]_B \\
& - k_{on,V164,R2}^B [V_{164}]_B [R_2]_B + k_{off,V164R2}^B [V_{164}R_2]_B \\
& - k_{c,V164N1,R2}^B [V_{164}N_1]_B [R_2]_B + k_{off,V164N1,R2}^B [R_2V_{164}N_1]_B
\end{aligned} \tag{S.15}$$

$$\begin{aligned}
\frac{d[N_1]_B}{dt} = & s_{N1}^B - k_{int,N1}^B [N_1]_B - k_{c,V120R1,N1}^B [V_{120}R_1]_B [N_1]_B + k_{dissoc,R1N1}^B [V_{120}R_1N_1]_B \\
& - k_{c,R1,N1}^B [N_1]_B [R_1]_B + k_{dissoc,R1N1}^B [R_1N_1]_B \\
& - k_{on,V164,N1}^B [V_{164}]_B [N_1]_B + k_{off,V164N1}^B [V_{164}N_1]_B \\
& - k_{c,V164R2,N1}^B [V_{164}R_2]_B [N_1]_B + k_{off,V164R2,N1}^B [R_2V_{164}N_1]_B
\end{aligned} \tag{S.16}$$

$$\frac{d[V_{164}R_1]_N}{dt} = -k_{int,V164R1}^N [V_{164}R_1]_N + k_{on,V164,R1}^N [V_{164}]_N [R_1]_N - k_{off,V164R1}^N [V_{164}R_1]_N \tag{S.17}$$

$$\begin{aligned}
\frac{d[V_{164}R_2]_N}{dt} = & -k_{int,V164R2}^N [V_{164}R_2]_N + k_{on,V164,R2}^N [V_{164}]_N [R_2]_N - k_{off,V164R2}^N [V_{164}R_2]_N \\
& - k_{c,V164R2,N1}^N [V_{164}R_2]_N [N_1]_N + k_{off,V164R2,N1}^N [R_2V_{164}N_1]_N
\end{aligned} \tag{S.18}$$

$$\begin{aligned}
\frac{d[V_{164}N_1]_N}{dt} = & -k_{int,V164N1}^N [V_{164}N_1]_N + k_{on,V164,N1}^N [V_{164}]_N [N_1]_N - k_{off,V164N1}^N [V_{164}N_1]_N \\
& - k_{c,V164N1,R2}^N [V_{164}N_1]_N [R_2]_N + k_{off,V164N1R2}^N [R_2V_{164}N_1]_N
\end{aligned} \tag{S.19}$$

$$\begin{aligned}
\frac{d[R_2V_{164}N_1]_N}{dt} = & -k_{int,V164R2N1}^N [R_2V_{164}N_1]_N \\
& + k_{c,V164R2,N1}^N [V_{164}R_2]_N [N_1]_N - k_{off,V164R2N1}^N [R_2V_{164}N_1]_N \\
& + k_{c,V164N1,R2}^N [V_{164}N_1]_N [R_2]_N - k_{off,V164N1R2}^N [R_2V_{164}N_1]_N
\end{aligned} \tag{S.20}$$

$$\begin{aligned} \frac{d[V_{120}R_1]_N}{dt} = & -k_{int,V120R1}^N [V_{120}R_1]_N \\ & + k_{on,V120,R1}^N [V_{120}]_N [R_1]_N - k_{off,V120R1}^N [V_{120}R_1]_N \\ & - k_{c,R1,N1}^N [V_{120}R_1]_N [N_1]_N + k_{dissoc,R1N1}^N [V_{120}R_1N_1]_N \end{aligned} \quad (\text{S.21})$$

$$\frac{d[V_{120}R_2]_N}{dt} = -k_{int,V120R2}^N [V_{120}R_2]_N + k_{on,V120,R2}^N [V_{120}]_N [R_2]_N - k_{off,V120R2}^N [V_{120}R_2]_N \quad (\text{S.22})$$

$$\begin{aligned} \frac{d[R_1N_1]_N}{dt} = & -k_{int,R1N1}^N [R_1N_1]_N \\ & + k_{c,R1,N1}^N [R_1]_N [N_1]_N - k_{dissoc,R1N1}^N [R_1N_1]_N \\ & - k_{on,V120,R1}^N [V_{120}]_N [R_1N_1]_N + k_{off,V120R1}^N [V_{120}R_1N_1]_N \end{aligned} \quad (\text{S.23})$$

$$\begin{aligned} \frac{d[V_{120}R_1N_1]_N}{dt} = & -k_{int,V120R1N1}^N [V_{120}R_1N_1]_N \\ & + k_{c,V120R1,N1}^N [V_{120}R_1]_N [N_1]_N - k_{dissoc,V120N1}^N [V_{120}R_1N_1]_N \\ & + k_{on,V120R1N1}^N [V_{120}]_N [R_1N_1]_N - k_{off,V120R1N1}^N [V_{120}R_1N_1]_N \end{aligned} \quad (\text{S.24})$$

$$\frac{d[V_{164}R_1]_B}{dt} = -k_{int,V164R1}^B [V_{164}R_1]_B + k_{on,V164,R1}^B [V_{164}]_B [R_1]_B - k_{off,V164R1}^B [V_{164}R_1]_B \quad (\text{S.25})$$

$$\frac{d[V_{164}R_2]_B}{dt} = -k_{int,V164R2}^B [V_{164}R_2]_B + k_{on,V164,R2}^B [V_{164}]_B [R_2]_B - k_{off,V164R2}^B [V_{164}R_2]_B \quad (\text{S.26})$$

$$\begin{aligned} \frac{d[V_{164}N_1]_B}{dt} = & -k_{int,V164N1}^B [V_{164}N_1]_B + k_{on,V164,N1}^B [V_{164}]_B [N_1]_B - k_{off,V164N1}^B [V_{164}N_1]_B \\ & - k_{c,V164N1,R2}^B [V_{164}N_1]_B [R_2]_B + k_{off,V164N1R2}^B [R_2V_{164}N_1]_B \end{aligned} \quad (\text{S.27})$$

$$\begin{aligned} \frac{d[R_2V_{164}N_1]_B}{dt} = & -k_{int,V164R2N1}^B [R_2V_{164}N_1]_B \\ & + k_{c,V164R2,N1}^B [V_{164}R_2]_B [N_1]_B - k_{off,V164R2N1}^B [R_2V_{164}N_1]_B \\ & + k_{c,V164N1,R2}^B [V_{164}N_1]_B [R_2]_B - k_{off,V164N1R2}^B [R_2V_{164}N_1]_B \end{aligned} \quad (\text{S.28})$$

$$\begin{aligned} \frac{d[V_{120}R_1]_B}{dt} = & -k_{int,V120R1}^B [V_{120}R_1]_B \\ & + k_{on,V120,R1}^B [V_{120}]_B [R_1]_B - k_{off,V120R1}^B [V_{120}R_1]_B \\ & - k_{c,R1,N1}^B [V_{120}R_1]_B [N_1]_B + k_{dissoc,R1N1}^B [V_{120}R_1N_1]_B \end{aligned} \quad (\text{S.29})$$

$$\frac{d[V_{120}R_2]_B}{dt} = -k_{int,V120R2}^B [V_{120}R_2]_B + k_{on,V120,R2}^B [V_{120}]_B [R_2]_B - k_{off,V120R2}^B [V_{120}R_2]_B \quad (\text{S.30})$$

$$\begin{aligned} \frac{d[R_1N_1]_B}{dt} = & -k_{int,R1N1}^B [R_1N_1]_B \\ & + k_{c,R1,N1}^B [R_1]_B [N_1]_B - k_{dissoc,R1N1}^B [R_1N_1]_B \\ & - k_{on,V120,R1}^B [V_{120}]_B [R_1N_1]_B + k_{off,V120R1}^B [V_{120}R_1N_1]_B \end{aligned} \quad (\text{S.31})$$

$$\begin{aligned} \frac{d[V_{120}R_1N_1]_B}{dt} = & -k_{int,V120R1N1}^B [V_{120}R_1N_1]_B \\ & + k_{c,V120R1,N1}^B [V_{120}R_1]_B [N_1]_B - k_{dissoc,V120N1}^B [V_{120}R_1N_1]_B \\ & + k_{on,V120R1N1}^B [V_{120}]_B [R_1N_1]_B - k_{off,V120R1N1}^B [V_{120}R_1N_1]_B \end{aligned} \quad (\text{S.32})$$

$$\begin{aligned} \frac{d[N_1]_{N,myo}}{dt} = & s_{N1}^{N,myo} - k_{int,N1}^{N,myo} [N_1]_{N,myo} \\ & + k_{on,V164,N1}^{N,myo} [V_{164}]_N [N_1]_{N,myo} - k_{off,V164N1}^{N,myo} [V_{164}N_1]_{N,myo} \end{aligned} \quad (\text{S.33})$$

$$\begin{aligned} \frac{d[V_{164}N_1]_{N,myo}}{dt} = & -k_{int,V164N1}^{N,myo} [V_{164}N_1]_{N,myo} \\ & + k_{on,V164,N1}^{N,myo} [V_{164}]_N [N_1]_{N,myo} - k_{off,V164N1}^{N,myo} [V_{164}N_1]_{N,myo} \end{aligned} \quad (\text{S.34})$$

$$\begin{aligned} \frac{d[A]_B}{dt} = & q_A^B - c_A [A]_B - k_{on,V164,A}^B [V_{164}]_B [A]_B + k_{off,V164A}^B [V_{164}A]_B \\ & - k_{on,V120,A}^B [V_{120}]_B [A]_B + k_{off,V120A}^B [V_{120}A]_B \\ & + k_{pA}^{BN} \frac{S_{NB}}{U_p} [A]_B - \left(\frac{k_L + k_{pA}^{NB} S_{NB}}{U_B} \right) \frac{[A]_N}{K_{AV,N}} \end{aligned} \quad (\text{S.35})$$

$$\begin{aligned} \frac{d[V_{164}A]_B}{dt} = & -c_{V164A} [V_{164}A]_B + k_{on,V164,A}^B [V_{164}]_B [A]_B - k_{off,V164A}^B [V_{164}A]_B \\ & - k_{pA}^{BN} \frac{S_{NB}}{U_p} [V_{164}A]_B + \left(\frac{k_L + k_{pA}^{NB} S_{NB}}{U_B} \right) \frac{[V_{164}A]_N}{K_{AV,N}} \end{aligned} \quad (\text{S.36})$$

$$\begin{aligned} \frac{d[V_{120}A]_B}{dt} = & -c_{V120A} [V_{120}A]_B + k_{on,V120,A}^B [V_{120}]_B [A]_B - k_{off,V120A}^B [V_{120}A]_B \\ & - k_{pA}^{BN} \frac{S_{NB}}{U_p} [V_{120}A]_B + \left(\frac{k_L + k_{pA}^{NB} S_{NB}}{U_B} \right) \frac{[V_{120}A]_N}{K_{AV,N}} \end{aligned} \quad (\text{S.37})$$

$$\begin{aligned}
\frac{d[A]_N}{dt} = & -k_{on,V164,A}^N [V_{164}]_N [A]_N + k_{off,V164A}^N [V_{164}A]_N \\
& -k_{on,V120,A}^N [V_{120}]_N [A]_N + k_{off,V120A}^N [V_{120}A]_N \\
& + k_{pA}^{BN} \frac{S_{NB}}{U_N} \frac{U_B}{U_p} [A]_B - \left(\frac{k_L + k_{pA}^{NB} S_{NB}}{U_N} \right) \frac{[A]_N}{K_{AV,N}}
\end{aligned} \tag{S.38}$$

$$\begin{aligned}
\frac{d[V_{164}A]_N}{dt} = & k_{on,V164,A}^N [V_{164}]_N [A]_N - k_{off,V164A}^N [V_{164}A]_N \\
& + k_{pA}^{BN} \frac{S_{NB}}{U_N} \frac{U_B}{U_p} [V_{164}A]_B - \left(\frac{k_L + k_{pA}^{NB} S_{NB}}{U_N} \right) \frac{[V_{164}A]_N}{K_{AV,N}}
\end{aligned} \tag{S.39}$$

$$\begin{aligned}
\frac{d[V_{120}A]_N}{dt} = & k_{on,V120,A}^N [V_{120}]_N [A]_N - k_{off,V120A}^N [V_{120}A]_N \\
& + k_{pA}^{BN} \frac{S_{NB}}{U_N} \frac{U_B}{U_p} [V_{120}A]_B - \left(\frac{k_L + k_{pA}^{NB} S_{NB}}{U_N} \right) \frac{[V_{120}A]_N}{K_{AV,N}}
\end{aligned} \tag{S.40}$$

Glossary

Concentrations

$[V_{120}]$, $[V_{164}]$	Concentration of unbound VEGF ₁₂₀ and VEGF ₁₆₄
$[M_{ECM}]$, $[M_{EBM}]$, $[M_{PBM}]$	Concentration of VEGF binding sites in the ECM, EBM, and PBM
$[V_{164}M_{ECM}]$, $[V_{164}M_{EBM}]$, $[V_{164}M_{PBM}]$	Concentration of VEGF ₁₆₄ bound to the ECM, EBM, and PBM
$[R_1]$, $[R_2]$	Concentration of un-occupied VEGFR-1 and VEGFR-2 receptor tyrosine kinases
$[N_I]$	Concentration of un-occupied NRP-1 co-receptor (on endothelial cells)
$[N_I]_{myo}$	Concentration of un-occupied NRP-1 co-receptor (on myocytes)
$[R_I N_I]$	Concentration of the VEGFR-1-NRP-1 complex
$[V_i R_j]$	Concentration of VEGF isoform i bound to VEGFR j
$[V_i N_I]$	Concentration of VEGF isoform i bound to NRP-1
$[R_2 V_{164} N_I]$	Concentration of the VEGFR-2-VEGF ₁₆₄ -NRP-1 ternary complex
$[V_{120} R_I N_I]$	Concentration of the VEGF ₁₂₀ -VEGFR-1-NRP-1 ternary complex
$[V_{164} N_I]_{myo}$	Concentration of VEGF ₁₆₄ bound to NRP-1 (on myocytes)
$[A]$	Concentration of anti-VEGF agent

$[VA]$	Concentration of VEGF isoform i bound to anti-VEGF agent
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Geometric parameters

U_i	Volume of compartment i (N=tissue, B=blood, P=plasma)
S_{NB}	Total surface area of endothelial cells at the interface of tissue (N) and blood (B)
$K_{AV,i}$	Available volume fraction in the tissue, i.e., ratio of available fluid volume to total tissue volume U_i

Kinetic parameters

q_{V120}, q_{V164}	Secretion rate of VEGF ₁₂₀ and VEGF ₁₆₄
q_A	Injection rate of anti-VEGF agent
s_R	Insertion rate of receptors into the cell membrane of endothelial cells or myocytes
k_{on}	Kinetic binding rate
k_{off}	Kinetic unbinding rate
k_c	Kinetic coupling rate for receptors
k_{int}	Internalization rate of receptors
k_{pV}^{ij}	Microvascular permeability of VEGF from compartment i to compartment j (N=tissue, B=blood)
k_{pA}^{ij}	Microvascular permeability of anti-VEGF agent and

VEGF/anti-VEGF complex from

compartment i to compartment j

(N=tissue, B=blood)

k_L

Lymphatic drainage rate

c_{V120}, c_{V164}

Rate of plasma clearance of VEGF₁₂₀ and VEGF₁₆₄

$c_A, c_{V120A}, c_{V164A}$

Rate of plasma clearance of anti-VEGF and

VEGF/anti-VEGF complex