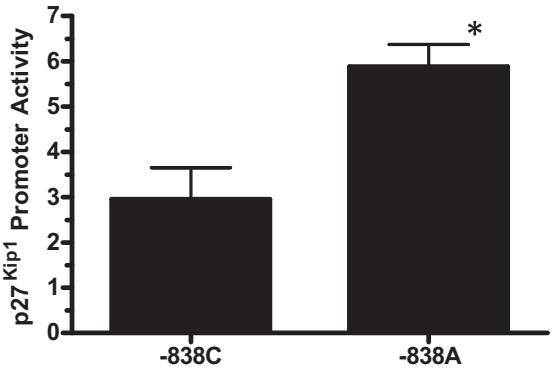

Supplementary Fig (online only). Effect of the *p27^{kip1}*-838C>A polymorphism on p27^{Kip1} promoter activity in human venous fibroblasts. Primary cultured adventitial fibroblasts from human saphenous vein (Kenagy et al J Vasc Surgery 2009; 49:1282-8) were transfected by electroporation with the indicated p27^{Kip1} promoter-luciferase constructs used by van Tiel et al (Circulation 2009; 120:669-676) containing the -838A or -838C variant. One day after transfection, cells were changed to serum-free medium for 24 hours and firefly luciferase activity measured. Luciferase activity was normalized to *Renilla* luciferase and expressed as fold of the empty pGL3 shuttle vector. Data shown are mean of four independent experiments ($P < .006$ by paired *t* test).

Supplementary Table I (online only). Patient inclusion and exclusion criteria for Seattle cohort

Category	Including	Excluding
Type of surgical operation	Elective infrainguinal arterial bypass with autogenous vein for claudication or critical limb ischemia due to chronic atherosclerotic occlusive disease. Simultaneous endovascular inflow procedures permitted.	Operations for nonatherosclerotic, or aneurysmal disease. Simultaneous femoral–femoral, or aortobifemoral bypass. Post-op graft thrombosis for technical reasons, within the first 30 days.
Conduit	Autogenous vein graft >15 cm, including high-risk vein grafts[a] (single or spliced non-GSV segments, vein diameter <3 mm, surgical revisions or corrections performed at index operation).	Composite grafts that include prosthetic conduits. Thrombectomy and/or revision of an existing graft.
Systemic conditions	Stable malignancy (eg, prostate cancer)[a] Diabetes mellitus[a] Smoking[a] Hyperlipidemia[a] Statin therapy[a] Any type of antithrombotic therapy[a] Renal impairment (if BUN <60 mg/dL)[a] Previously failed leg bypass[a]	Actively progressive malignancy Chemotherapy for malignancy (≤3 months) Renal failure (dialysis) Systemic inflammatory disease (eg, lupus) Invasive infection A diagnosed hypercoagulable state
Patient characteristics	Age[a]: >18 years; race[a]: all races	Age[a]: <18 years
Administrative		Already enrolled in an investigational drug study. Previously enrolled in this study. Can't follow-up, expected survival <6 months.

BUN, Blood urea nitrogen; *GSV,* great saphenous vein.
[a]These conditions are identified as prospective covariables.

Supplementary Table II (online only). Characteristics of Seattle cohort by *p27*^{Kip1}-838 genotype

Variable[a]	*-838AA*	*-838CA*	*-838CC*
Patients	6 (11.5)	34 (65.4)	12 (23.1)
Age, years	69.3 ± 12.6	65.4 ± 7.9	63.8 ± 6.8
Male sex	5 (83.3)	31 (91.2)	12 (100.0)
Caucasian race	6 (100)	34 (100)	11 (92)
CLI	6 (100)	19 (56)	7 (58)
Diabetes mellitus	4 (67)	14 (41)	2 (17)
CAD/CVD	1 (17)	13 (38)	4 (33)
Current tobacco	2 (33)	16 (47)	7 (58)
Tissue loss	2 (33)	14 (41)	3 (25)
Infrapopliteal target	2 (33)	8 (24)	0 (0)

CAD, Coronary artery disease; *CLI*, critical limb ischemia; *CVD*, cerebrovascular disease.

[a]Continuous data are shown as mean ± standard deviation and categoric data as number (%).

Supplementary Table III (online only). Summary of clinical outcomes in Seattle cohort by *p27*^{Kip1}-838 genotype

Outcome	*AA No. (%)*	*CA No. (%)*	*CC No. (%)*	*Total No. (%)*
Loss of primary patency	1 (17)	15 (44)	3 (25)	19 (37)