ECO 426 (Market Design) - Lecture 5

Ettore Damiano

October 19, 2015

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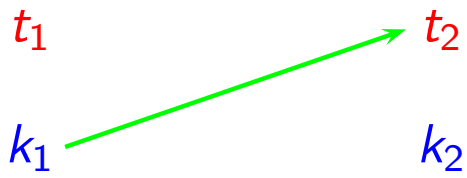

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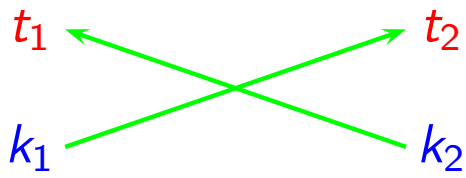

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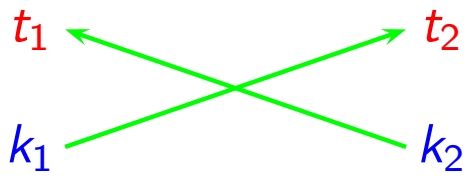

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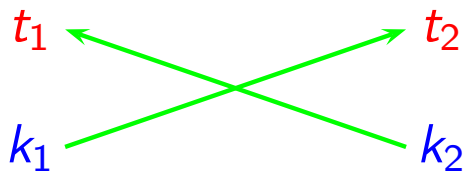

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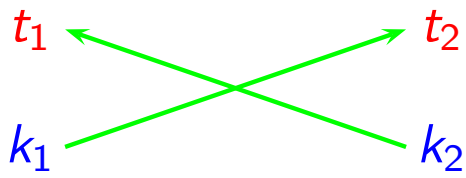

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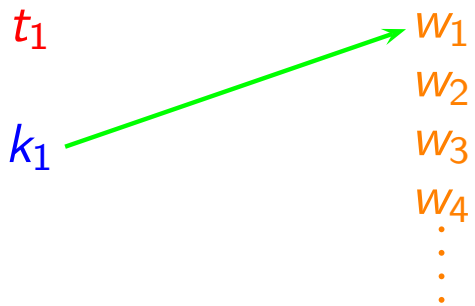

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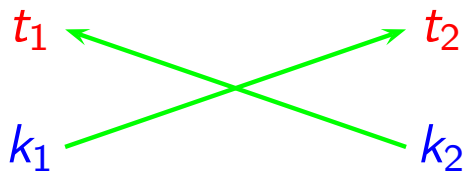

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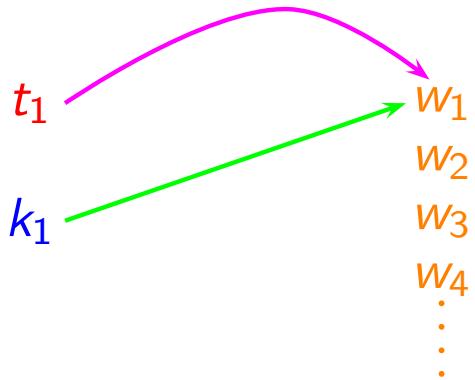

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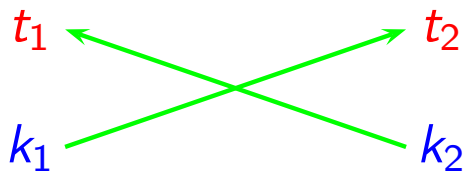

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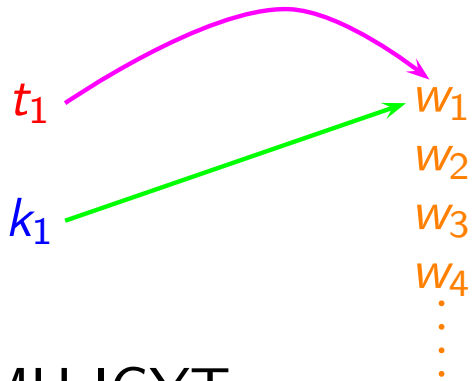

- Looks similar to YRMH-IGYT

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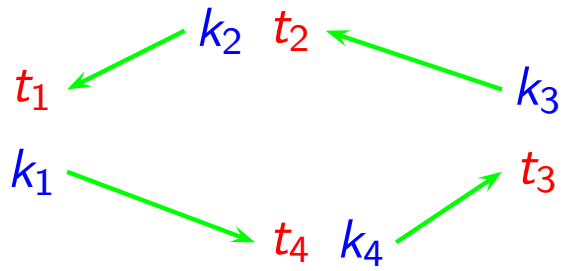

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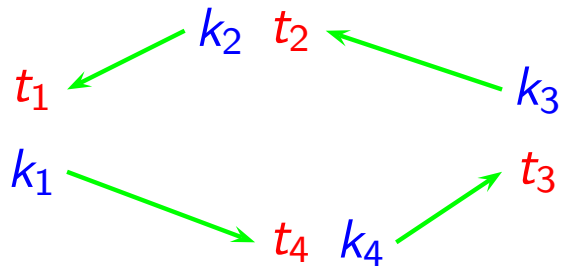

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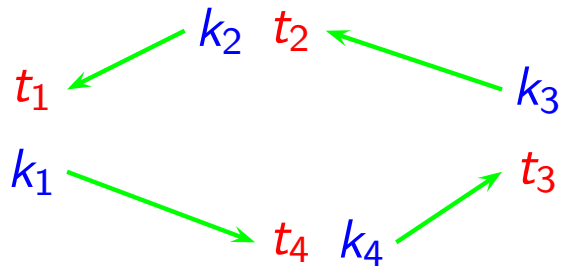

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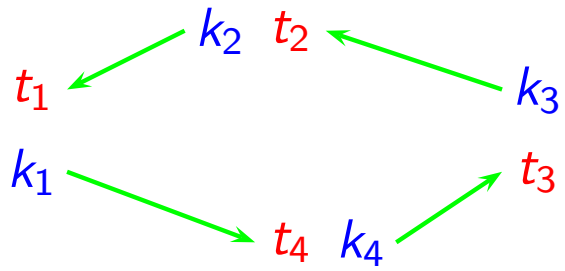

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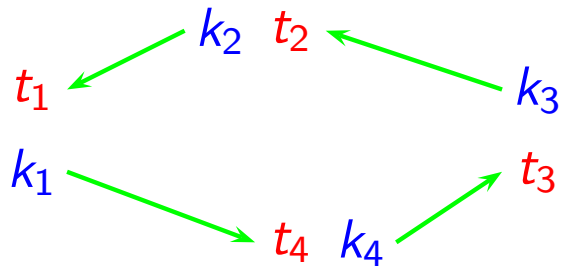

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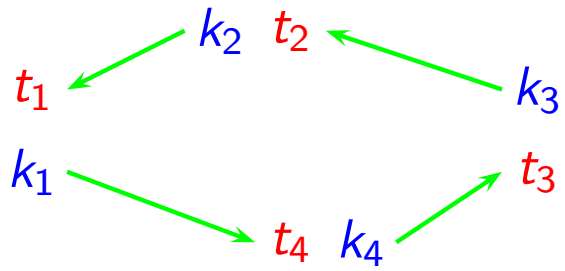

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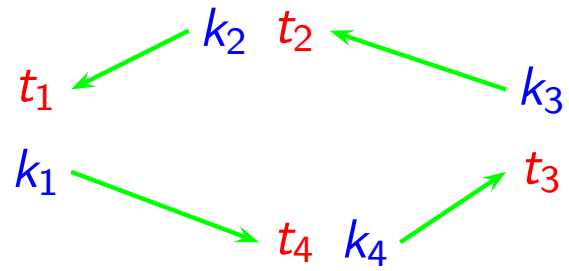

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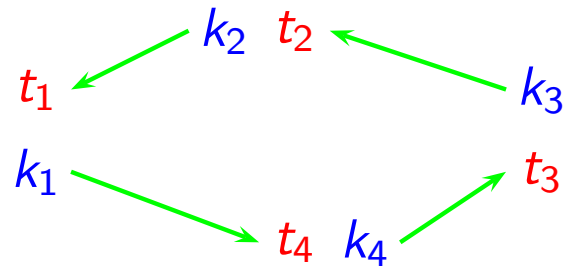

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  - Maximizing "supply" of live donors as maximizing participation

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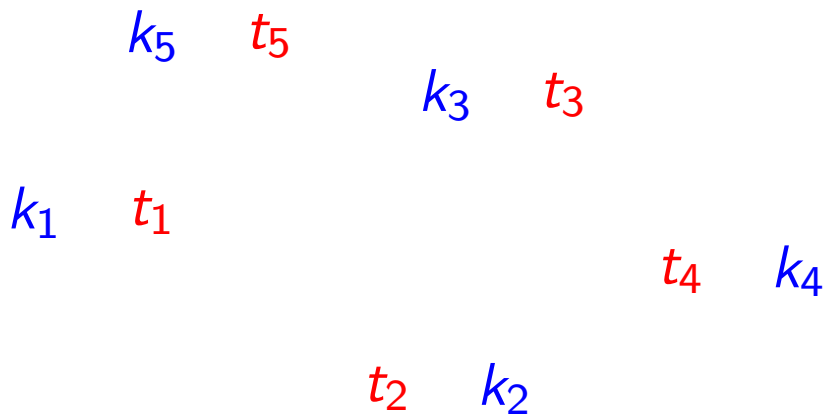

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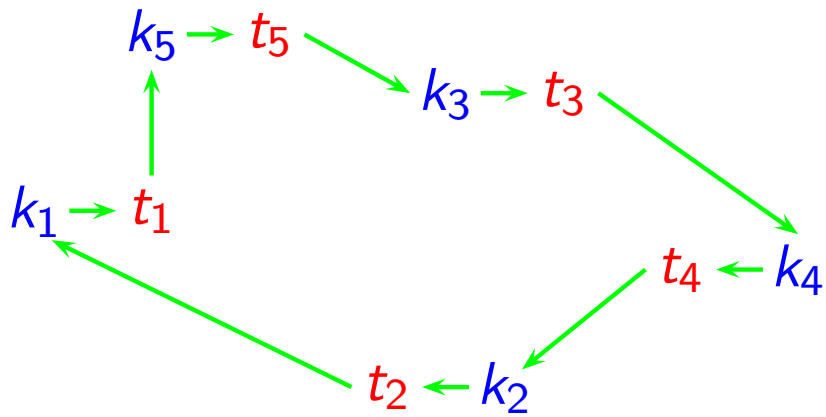

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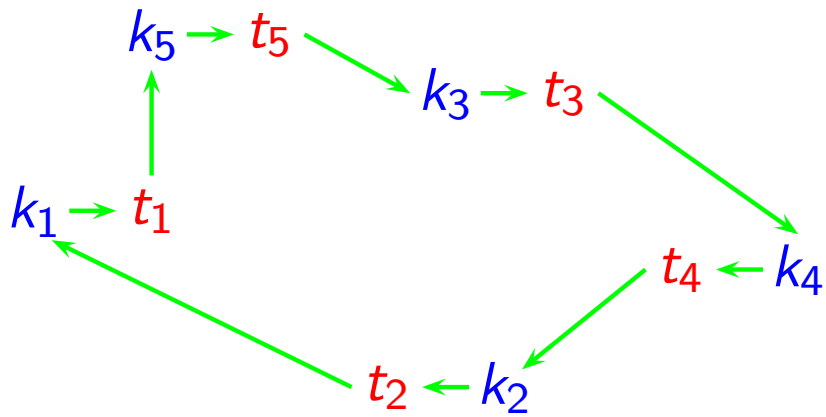

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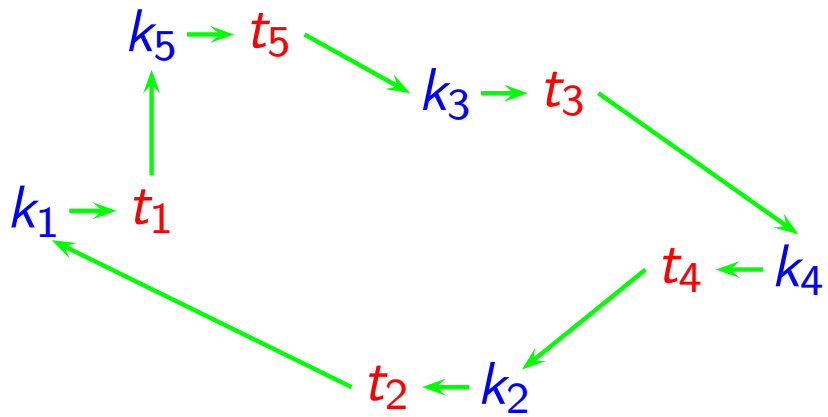

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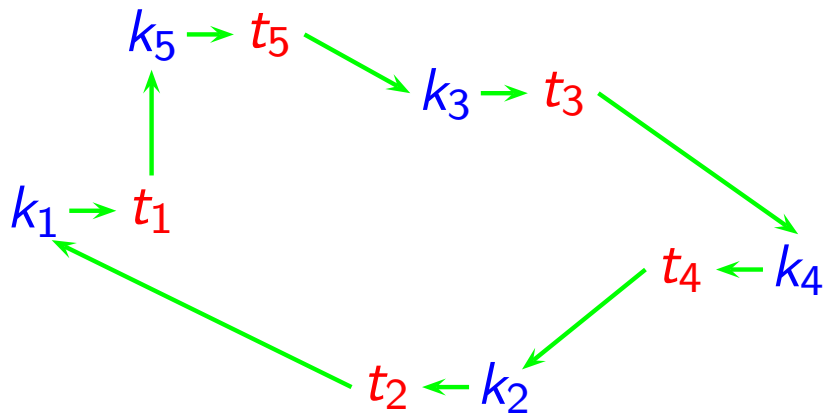

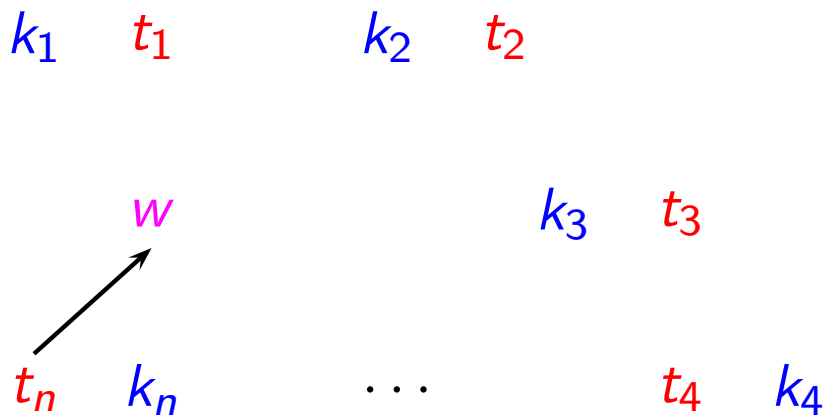

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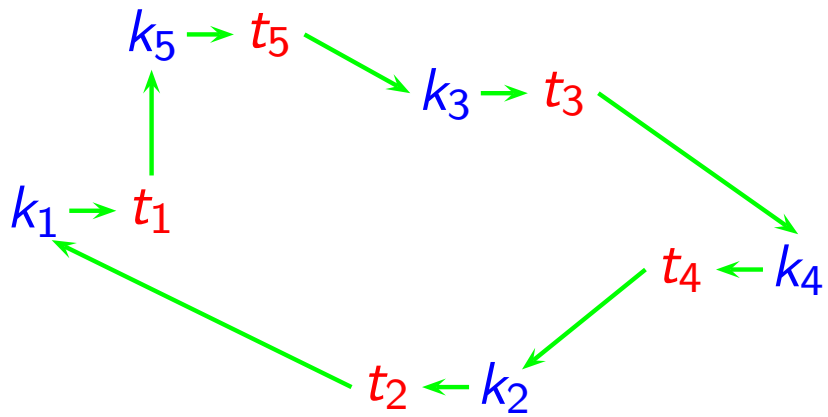
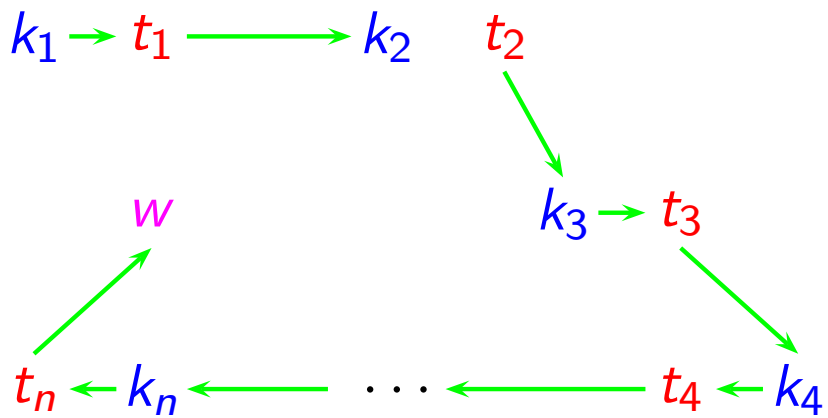
  - If there is no cycle there must be at least a w-chain





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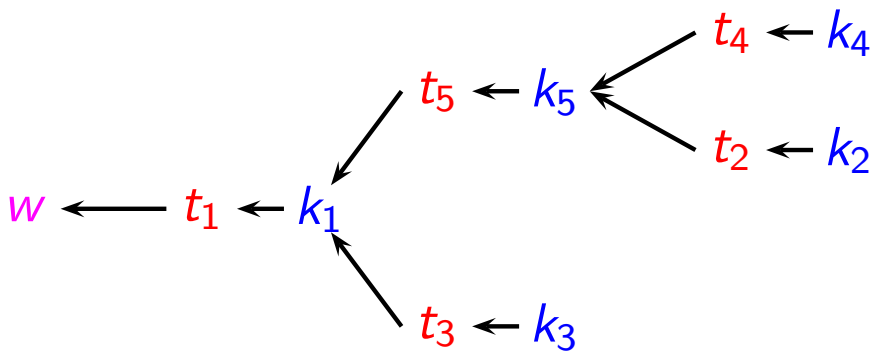

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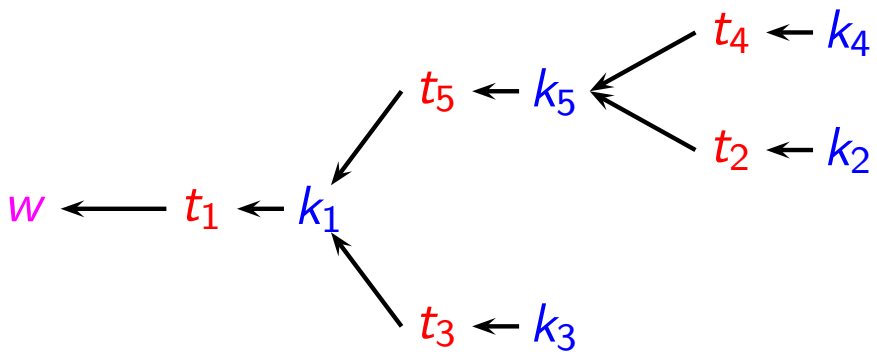

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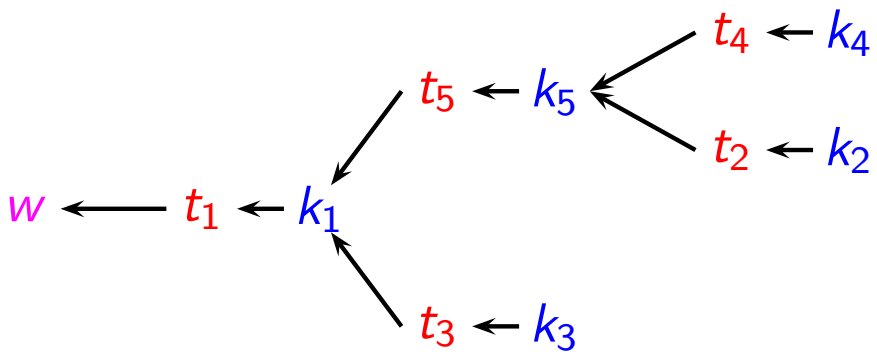

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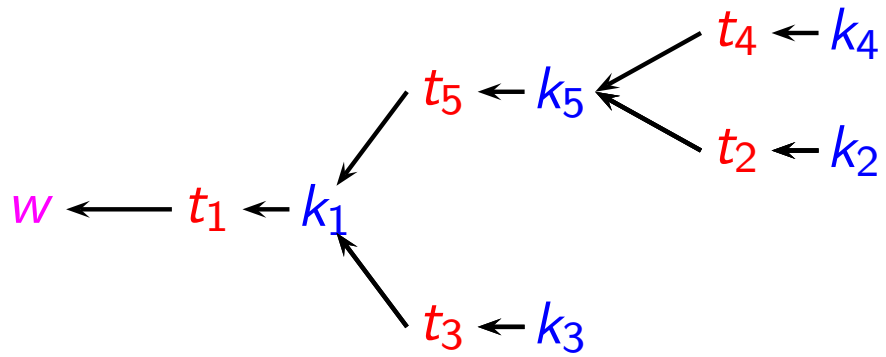

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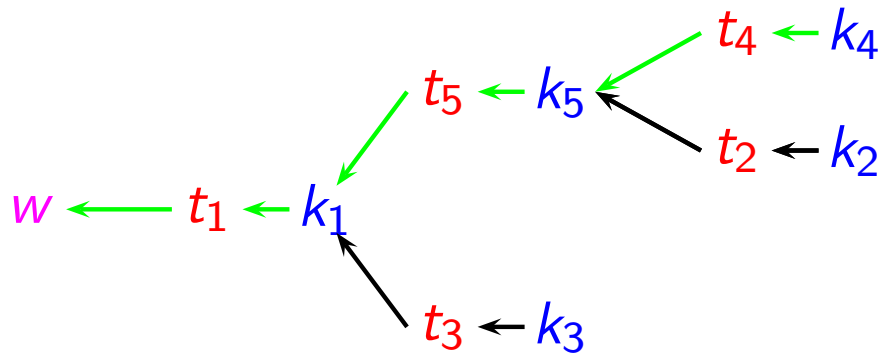

chain selection

- Examples of chain selection rules
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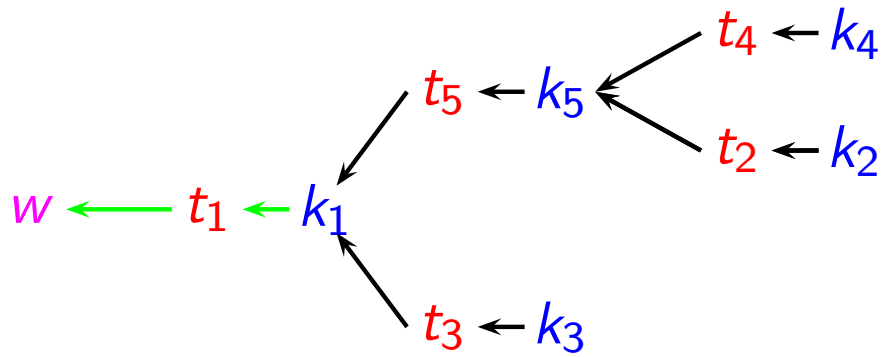

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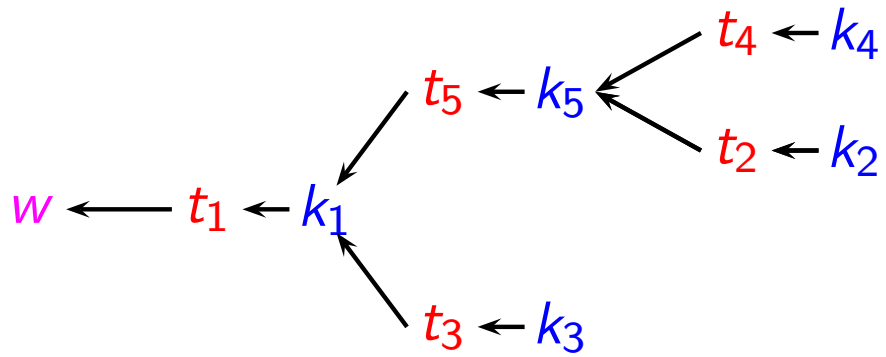

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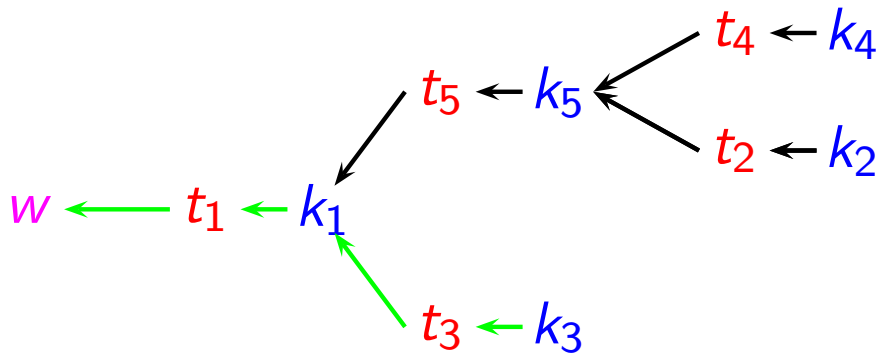

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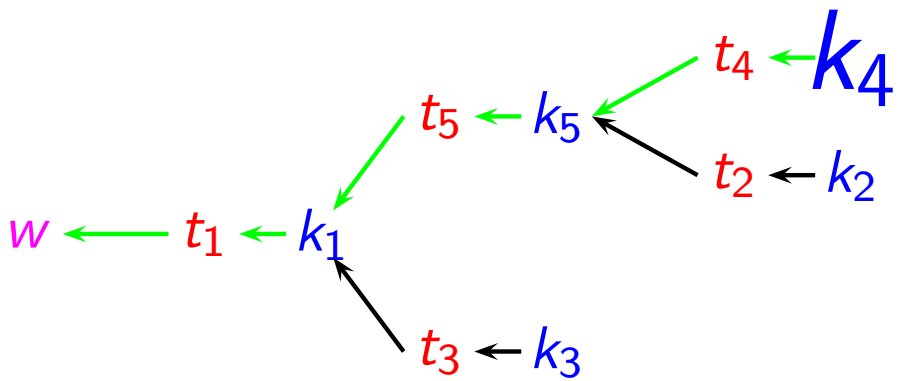

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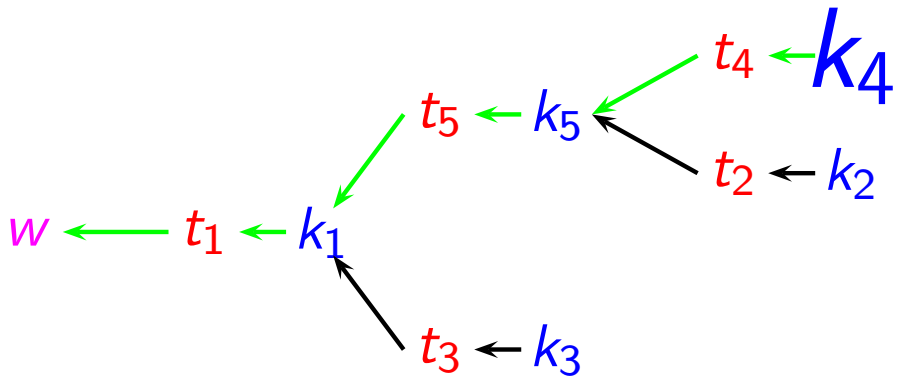

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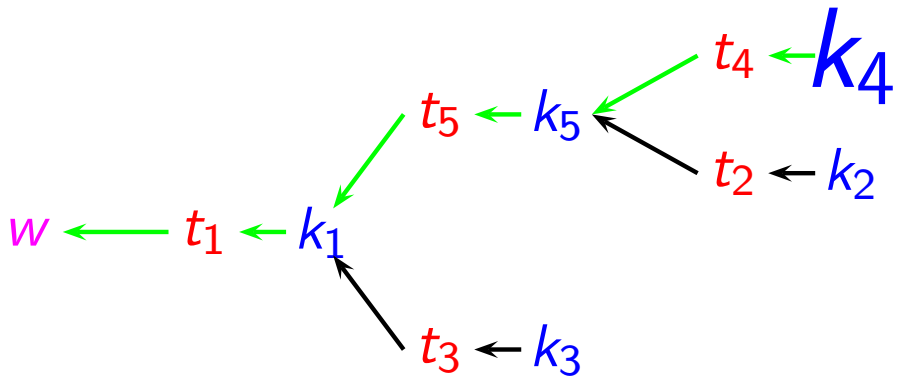

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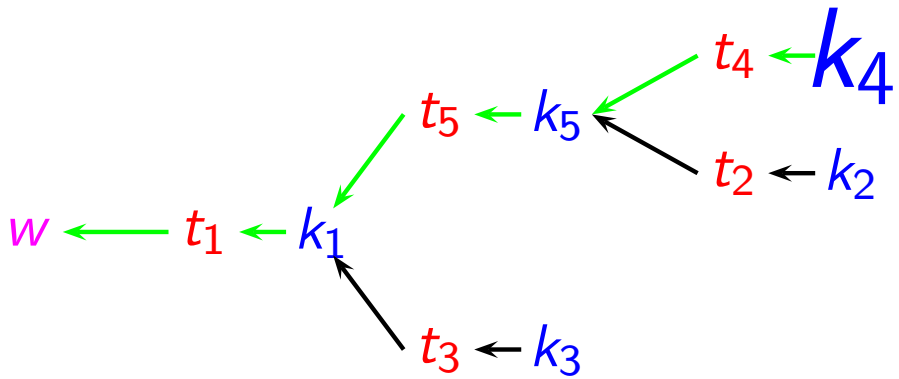

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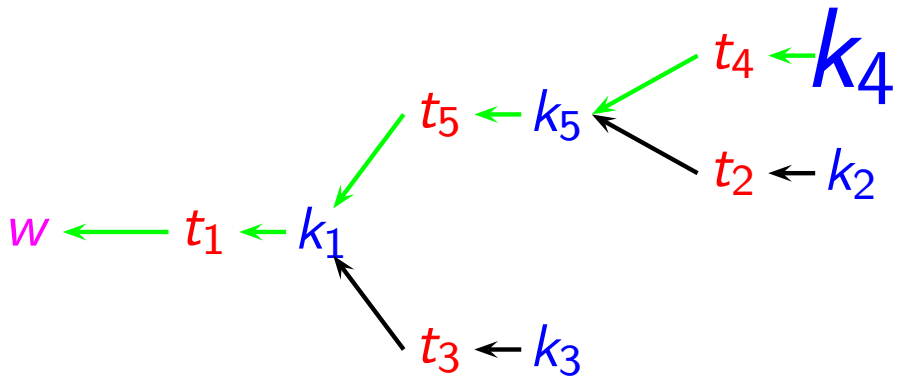

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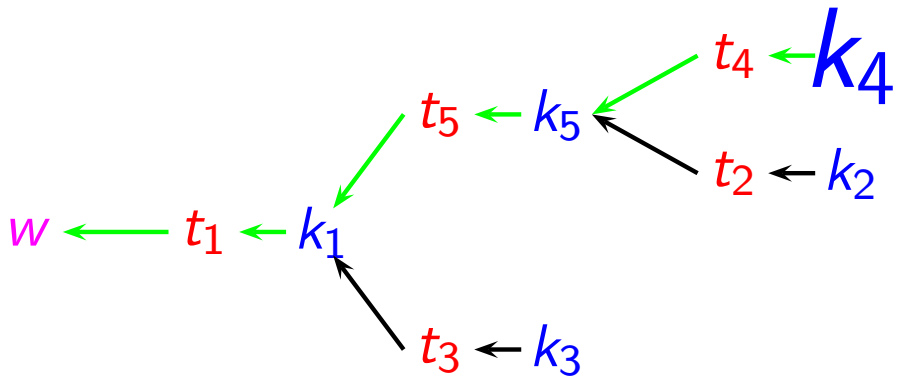

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- Objective: Find a collection of bilateral kidney exchange among mutually compatible donor-patient pairs

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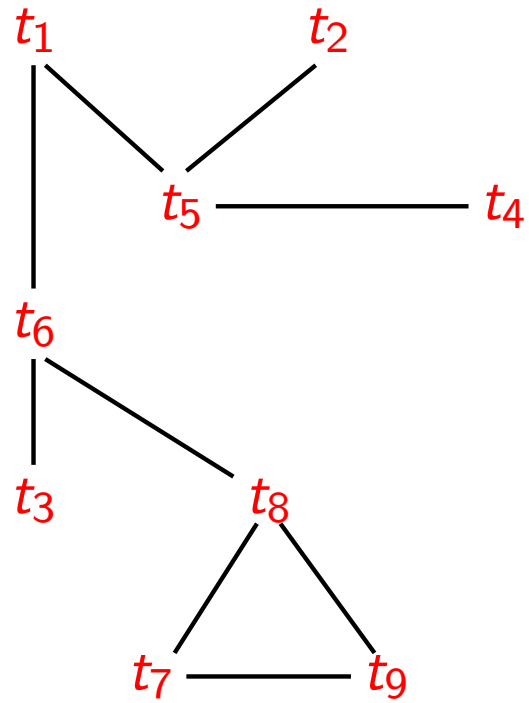

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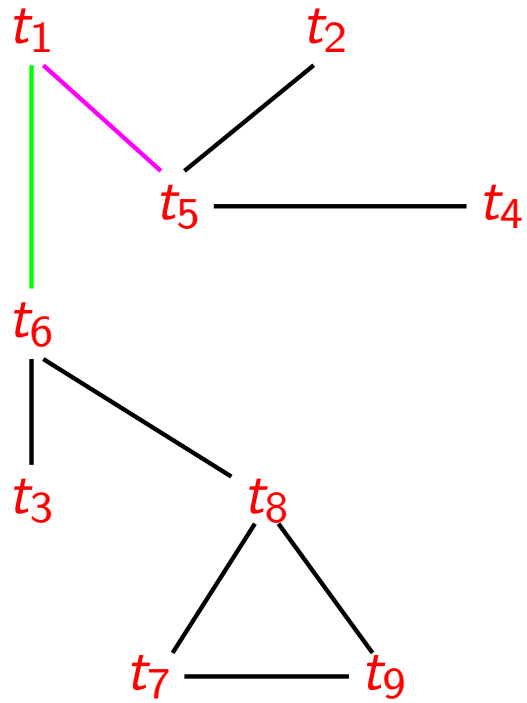

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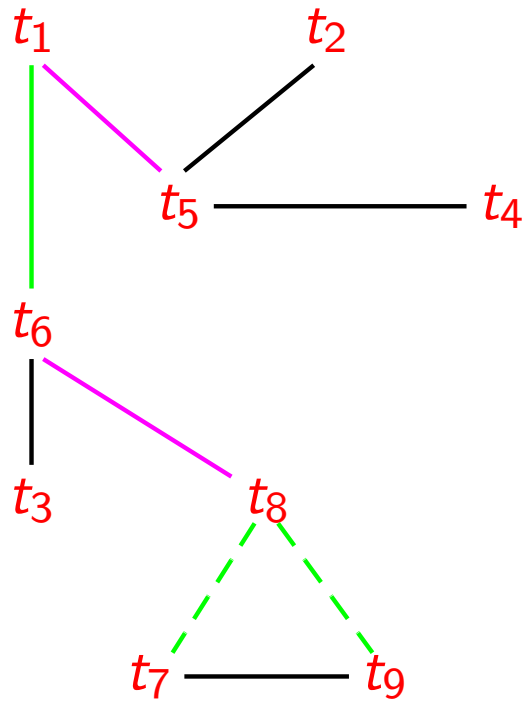

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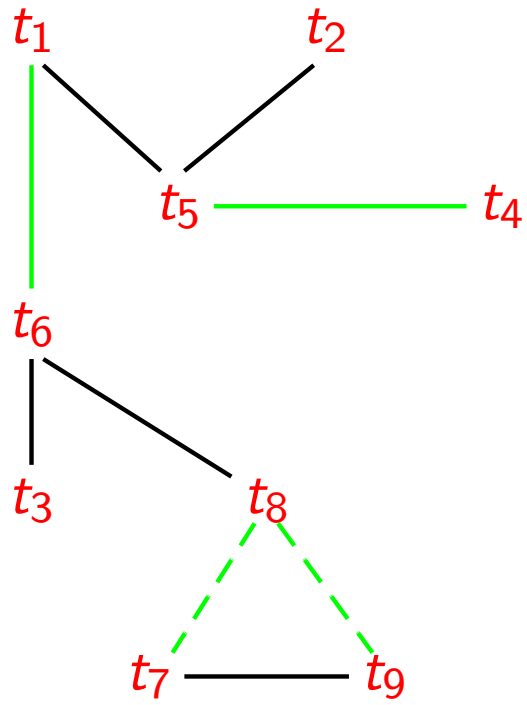

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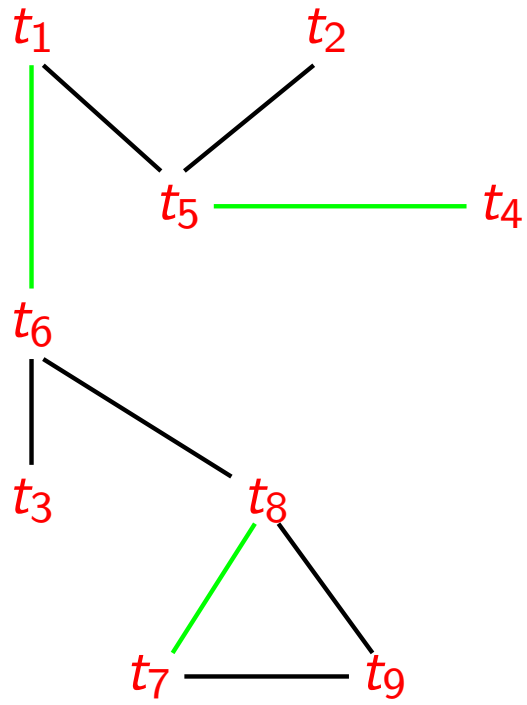

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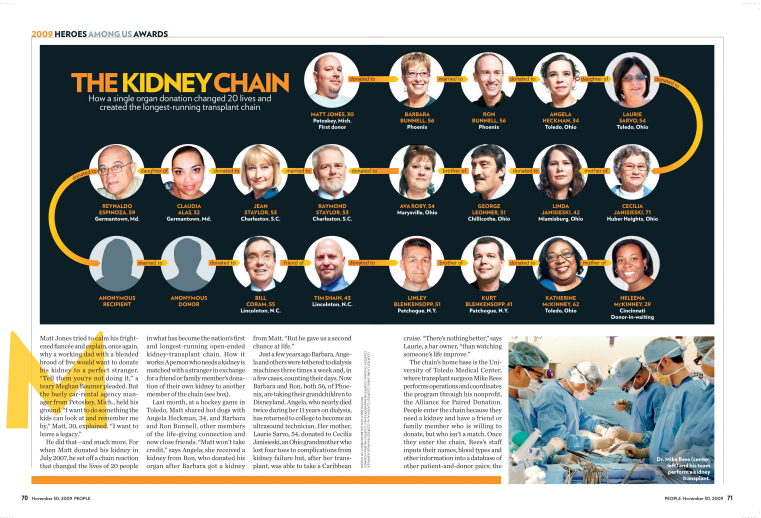

2009 HEROES AMONG US AWARDS

THE KIDNEY CHAIN

How a single organ donation changed 20 lives and created the longest-running transplant chain

MATT JONES, 30 — Petoskey, Mich. — First donor

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ANGELA HECKMAN, 54 — Toledo, Ohio

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ANONYMOUS RECIPIENT

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TIN SHAUN, 42 — Lincolnton, N.C.

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KURT BLEKKENSKOPF, 41 — Patchogue, N.Y.

KATHERINE MCKINNEY, 62 — Toledo, Ohio

HELEENA MCKINNEY, 29 — Cincinnati — Donor-to-waiting

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He did that—and much more. For when Matt donated his kidney in July 2007, he set off a chain reaction that changed the lives of 20 people in what has become the nation's first and longest-running open-ended kidney-transplant chain. How it works: A person who needs a kidney is matched with a stranger in exchange for a friend or family member's donation of their own kidney to another member of the chain (see box).

Last month, at a hockey game in Toledo, Matt shared hot dogs with Angela Heckman, 54, and Barbara and Ron Bunnell, other members of the life-giving connection and now close friends. "Matt won't take credit," says Angela; she received a kidney from Ron, who donated his organ after Barbara got a kidney from Matt. "But he gave us a second chance at life."

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The chain's home base is the University of Toledo Medical Center, where transplant surgeon Mike Rees performs operations and coordinates the program through his nonprofit, the Alliance for Paired Donation. People enter the chain because they need a kidney and have a friend or family member who is willing to donate, but who isn't a match. Once they enter the chain, Rees's staff inputs their names, blood types and other information into a database of other patient-and-donor pairs; the

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NEAD: Never Ending Altruistic Donor Chain

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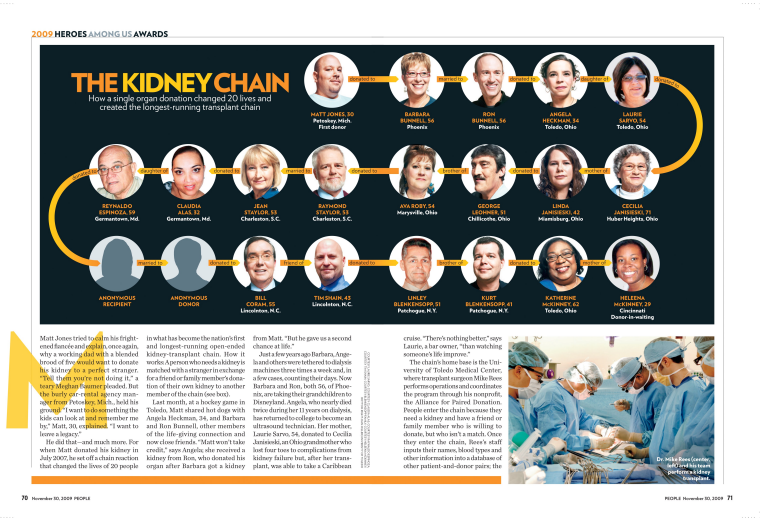

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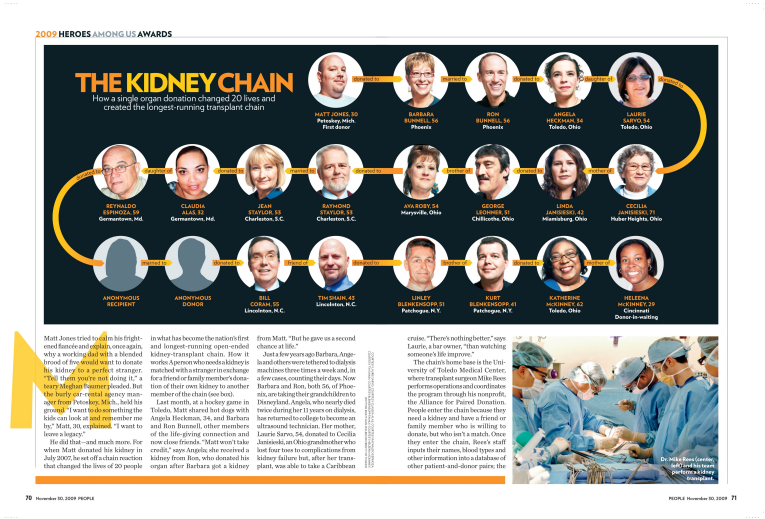

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