Readme file for the simulation programs used in

Haluk Ergin, Tayfun Sönmez, M. Utku Ünver "Efficient and Incentive Compatible Liver Exchange", for *Econometrica*

The main simulation file is a MATLAB file called
"sim_main_IC_LIVER_EXCHANGE_KOREA_4rev.m"

It generated average and standard deviations of the patients matched receiving left-lobe of donors, right-lobe of donors and total fort he regimes reported in the paper and additionally a greedy algorithm to show the benefit of optimization not reported in the paper.

The main output file is named "eff-ic-liver-KOREA-4rev-AVER-STD-**DATE**-Rnd**NNN**-Pop3-W6.csv"
NNN is a random number identifier, **DATE** is the date of the simulation run

The columns of the output file (in Excel alphabetic. numbering),
Column A: number of total simualtions (1000)
Column B: (even rows) Populations size as 50,100 or 250
Column C: (even rows) Willingness rate 0,0.2,0.4,0.6,0.8 or 1
Column D: not used

The averages and std errors (in squared brackets below averages) start from Column E
Each four columns refer to each regime with

PREfixes used are

NX: No exchange
IC: Our IC+PE+IR mechanism
IR: hypothetical maximum IR matching
GR: greedy matching
RSU: RSU (2005, JET) priority mechanism adopted fort his setup as explained in the paper

Each four column for a regime give
PRETotalLn: left lobe transplants
PRETotalRn: right lobe transplants
PRETotalnum: total transplants
Fourth column is not used

The simulation program uses IBM-ILOG program CPLEX and its MATLAB inteface routine, used under Academic License besides MATHWORKS MATLAB program, used also under Academic Lisense.

Additional programs needed are in the ZIP file