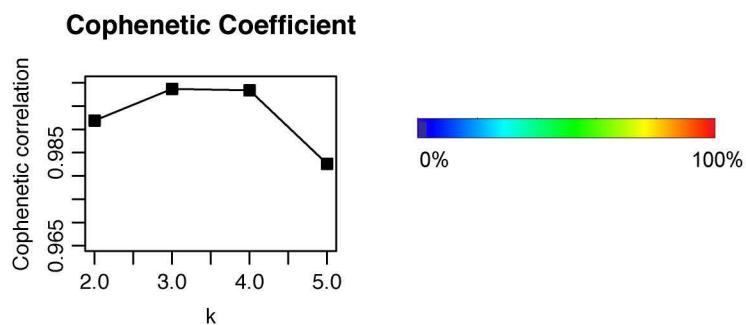
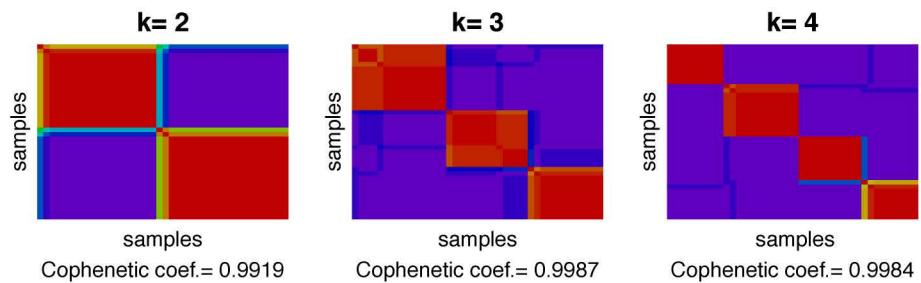
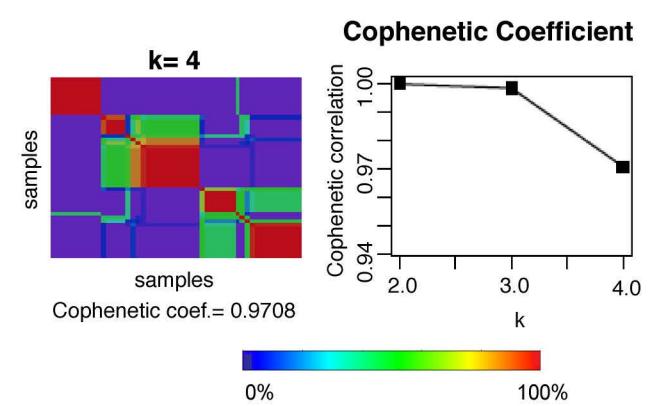
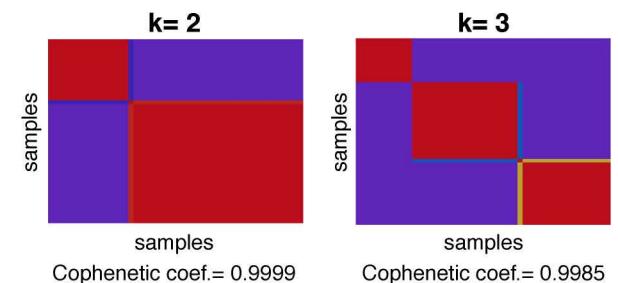


## Supplementary Figure 1

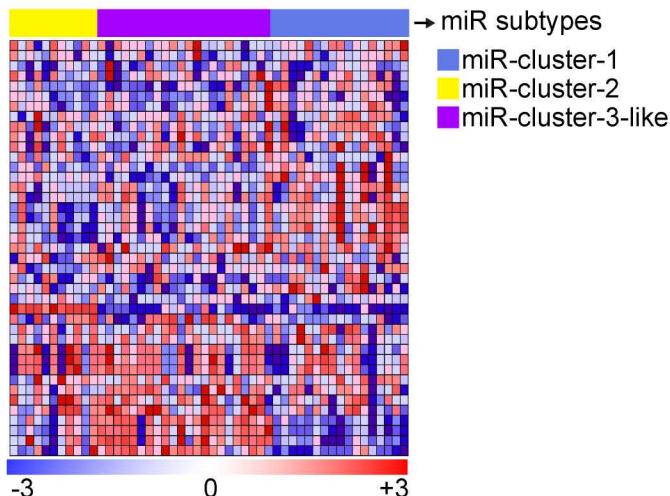
A. NMF analysis of human PanNET – core clinical miR dataset



B. NMF analysis of human PanNET miR – validation dataset

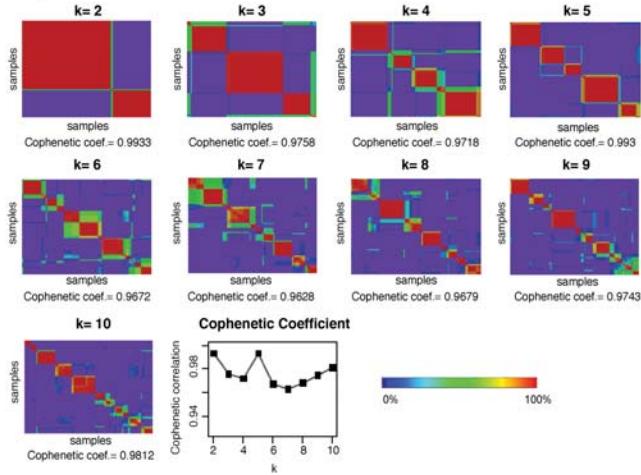


C. miR subtypes - validation dataset

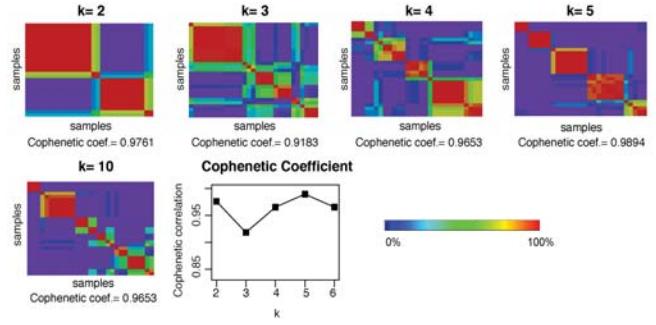


## Supplementary Figure 2

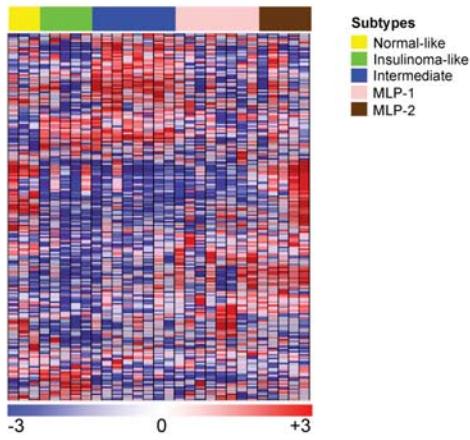
**A. NMF analysis of human PNET – core clinical gene expression dataset**



**B. NMF analysis of human PNET gene expression validation dataset**

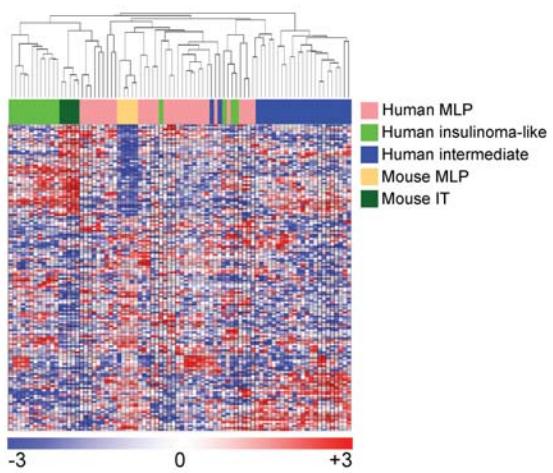


**C. Gene expression subtypes – validation dataset**



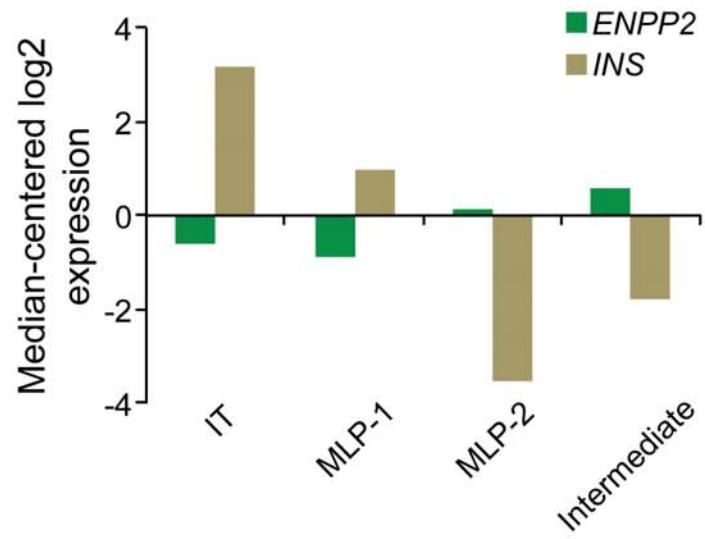
### Supplementary Figure 3

Cross-species analysis - gene expression data of human and mouse PanNET merged together using DWD



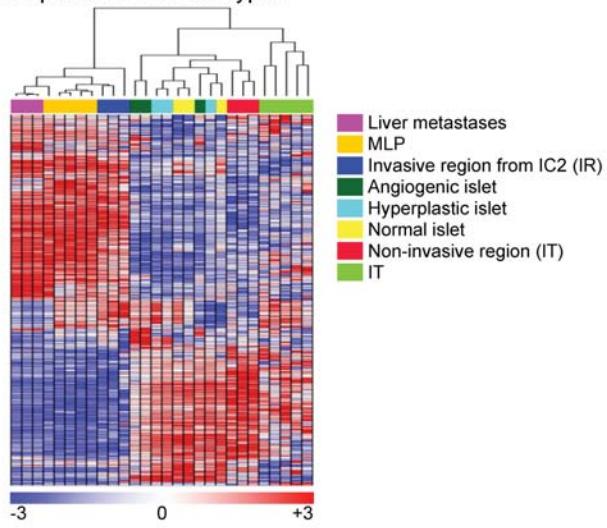
## Supplementary Figure 4

mRNA expression of *ENPP2* and *INS* in different subtypes - microarray data

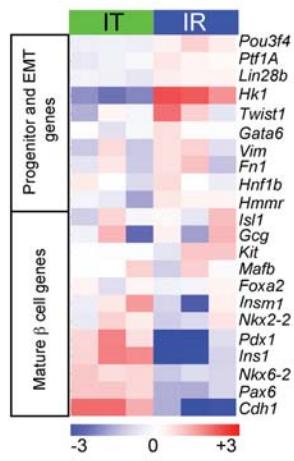


Supplementary Figure 5

A. Gene expression of invasive carcinoma compared to RT2 subtypes



B. Progenitor, metabolic and mature  $\beta$  cell genes in microdissected IT vs invasive region from IC2.



Supplementary Figure 6

Metabolite profiles from IT and MLP cell lines

