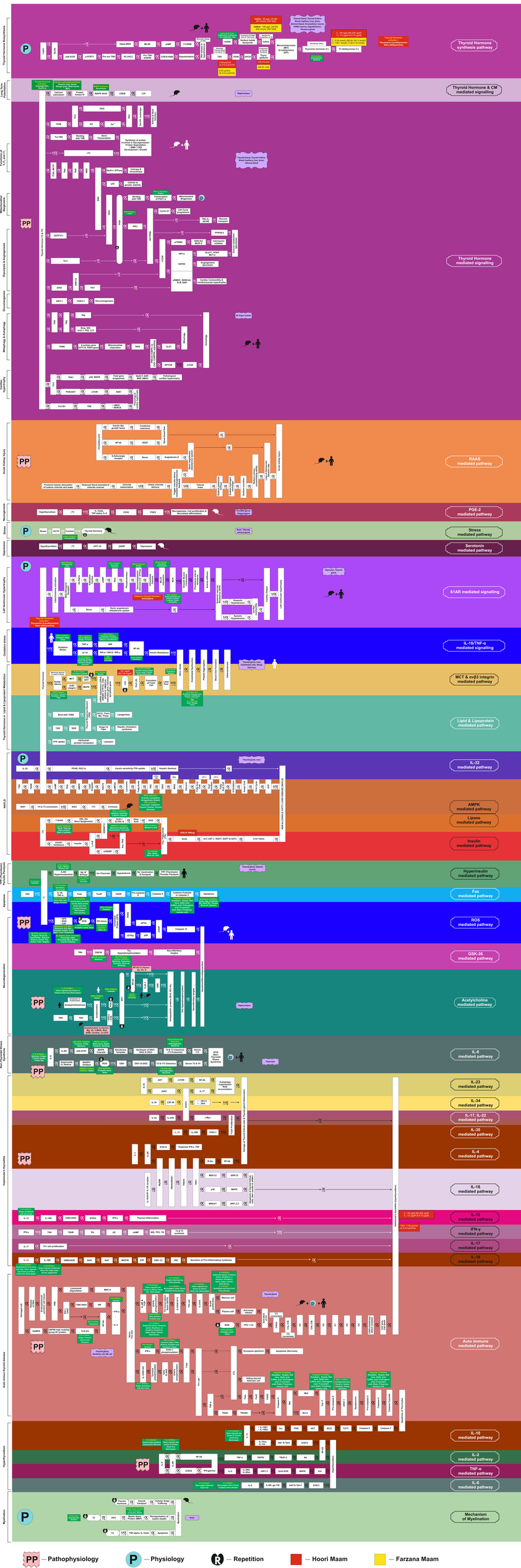THYROID METABOLISM