:TION OF HUMAN
\COKINETICS FOR
ACEUTICALS BASED ON
:OKINETICS IN PRE-
L ANIMAL MODELS

Marija Sterjova AREV[1], Paulina [1], Katarina DELIPETREVA[1], anevik-IVANOVSKA[1]

Sciences, Goce Delcev University Stip
nces, Department of Pharmacy, University of Tetova
r: e-mail: emilija.janevik@ugd.edu.mk

a number of new radiopharmaceuticals for ic purposes. However, they have been only d using biodistribution studies. A more erning their pharmacokinetic parameters is ceutical's complete characterization. Easy- researchers in the assessment of the rameters are not available in nuclear

stability in the different models was considered as important to be included.

The data presented in this paper can confirm that weight based allometric scaling of clearance from appropriate pre-clinical animal models can be clearly useful in predicting the human dose levels of imaging and therapeutic radiopharmaceuticals for Phase I clinical testing. Allometric scaling of animal pharmacokinetic parameters (clearance, half-life and volume of distribution) achieve a prediction of the human pharmacokinetic parameter with a high accuracy for all imaging and therapeutic radiopharmaceuticals with available clinical data. The need to assess and select appropriate animal models that will represent the human we highlighted and emphasizes difficulty in trying to achieve models that will be robust and reliable across all situations. Our contribution is to use this approach and predict human biodistribution of Lutetium-177 labeled antibody (Rituximab, Trastuzumab) from preclinical data after injection in mice (normal BALB/c mice and tumor bearing nude).

Keywords: Pharmacokinetics, Animal Model, Radiopharmaceutical.