دراسات تحليلية بغرض منع تناول المنشطات المحظورة

رسالة مقدمة من

الصيدلانية / نجلاء ابراهيم سيد

بكالوريوس العلوم الصيدلية ٢٠٠٧

كلية الصيدلة

جامعة عين شمس

للحصول علي ماجيستير في العلوم الصيدلية (كيمياء تحليلية)

تحت اشراف

أ.د. ليلي السيد عبد الفتاح

استاذ الكمياء التحليلية ووكيل الكلية لشئون الدراسات العليا
والبحوث بجامعة مصر للعلوم والتكنولوجيا

أ.د.أميرة مبروك القصاصي
استاذ الكمياء التحليلية الصيدلية
كلية الصيدلة
جامعة عين شمس

أ.م.د.عمرعبد العزيز علي غنيم
استاذ مساعد الكمياء التحليلية الصيدلية
كلية الصيدلة
جامعة عين شمس

كلية الصيدلة
جامعة عين شمس
٢٠١٢

References

Analytical Studies for Antidoping Purposes

Thesis

Presented for the partial fulfillment of the degree of
Master in Pharmaceutical Sciences (Analytical Chemistry)

By

Naglaa Ebrahim Sayed

B.SC. Pharmaceutical Sciences 2007

Under the Supervision of

Prof. Dr.
Laila El-Sayed Abd El-Fattah
Professor of Analytical Chemistry and Vice Dean for the postgraduate studies affairs and scientific research
Faculty of Pharmacy
Misr University for science and technology

Prof. Dr.
Amira Mabrouk El-Kosasy
Professor of Pharmaceutical Analytical Chemistry
Faculty of Pharmacy
Ain Shams University

Dr.
Omar Abdel-Aziz Ali Ghonim
Associate Professor of Pharmaceutical Analytical Chemistry
Faculty of Pharmacy
Ain Shams University

Faculty of pharmacy
Ain Shams university
2012

بسم الله الرحمن الرحيم

قَالُوا سُبْحَانَكَ لَا عِلْمَ لَنَا إِلَّا مَا
عَلَّمْتَنَا إِنَّكَ أَنْتَ الْعَلِيمُ الْحَكِيمُ.

سورة البقرة أية (٣٢)

Acknowledgment

All thanks and gratitude are to my lord Allah, who has given me the strength and will to finish this work. Words and thanks will never suffice to praise Allah for his mercy, blessings and guidance that lead me through the tough times.

It's my great pleasure to express my sincere thanks and grateful appreciation to ***Prof. Dr. Laila El-Sayed Abd El-Fattah,*** Professor of Analytical Chemistry and Vice Dean for the postgraduate studies affairs and scientific research, Faculty of Pharmacy, Misr University for science and technology, for her valuable suggestions, expert supervision, constructive comments and guidance during the supervision of this work. I will always be indebted to her kindness and continuous encouragement that had made continuation in the hard times attainable.

I would like to express my deepest gratitude and sincere appreciation to ***Prof. Dr. Amira Mabrouk El-Kosasy*****,** Professor of Pharmaceutical Analytical Chemistry, Faculty of Pharmacy, Ain Shams University, for suggesting the point, her kind and expert supervision, patience, unlimited support, generous assistance, and for the extensive effort, time and energy.

My profound thanks are to ***Dr. Omar Abdel-Aziz***, Associate Professor of Pharmaceutical Analytical Chemistry, Faculty of Pharmacy, Ain Shams University, who was always supporting me with constructive advice, persistent encouragement and valuable assistance throughout the whole work.

I am very grateful to my parents, brother, sister and my dear husband for standing by me in every step, their continuous support and encouragement all the way through and giving me all the strength and faith more than I needed.

Finally my sincere appreciation and thanks go to all my colleagues and staff members in Analytical Chemistry Department, for their friendly cooperation and constant support.

Naglaa Ebrahim

List of contents

Part IV

HPLC / DAD determination of doping drugs in pure form and spiked human plasma.

Section A: Simultaneous determination of four diuretics using HPLC/ DAD determination with further application to plasma

Part IV

HPLC / MS determination of doping drugs in human urine

Section A: Introduction to liquid chromatography / mass spectrometry