CURRICULUM VITAE

NAME:WALEED KHUDAIR AL-MURRANINATIONALITY:IRAQIDATE OF BIRTH:1938

QUALIFICATIONS: Ph.D. (QUANTITATIVE GENETICS) UK, EDINBURGH UNIVERSITY, 1973.

- Diploma Genetics, Edinburgh University. 1970 (Registered).
- Training (Wool Science), Bradford Uni., UK, 1966 1967
- BVM&S, Baghdad University, 1961.
- Holder of National First Class Award and Golden Medal for Scientific Achievements.
- Working member of the Scientific Committee of the Iraqi Academy of Science.
- Working member of the Iraqi committee for the preparation of the Arabic Agricultural Encyclopedia.
- Accredited member of the Iraqi Translation Association.

POSITION HELD (in reverse order):

*August 2006 - present:

- Visiting Professor, School of Biological Sciences, Plymouth University, Plymouth, UK.

*2004- July 2006:

- Professor of Genetics, Biostatistics and Transgenesis, Institute of Genetic Engineering and Biotechnology for Higher Studies, Baghdad University, Iraq.

* 2003-2004:

- Prof. of Genetics & Biostatistics, College of Veterinary Medicine

- Head of Department of Veterinary Public Health, College of Veterinary Medicine, Baghdad, Iraq.

*1999-2003:

- Professor of Genetics and Biostatistics, College of Veterinary Medicine, Baghdad, Iraq.

* 1990 - 1999:

- Head of Department of Veterinary Public Health, College of Veterinary Medicine, Baghdad University, Iraq.

- Professor of Genetics & Biostatistics, Baghdad, Iraq.

* 1986 – 1990:

- Director of Higher Studies & Scientific Affair, Baghdad University.

- Professor of Genetics, Breeding & Biostatistics, Baghdad, Iraq.

* 1982 – 1986:

- Technical Adviser to the Director – General, Arab Organization for Agricultural Development, Khartoum, Sudan. (AOAD).

- Head of the Documentation Center, AOAD.

- Head of Animal & Veterinary Services, AOAD.

- Head of the Scientific Committee of Preparation & Compilation of the Arab Agricultural Dictionary.

*1974- 1982:

- Assistant Professor, College of Veterinary Medicine, Baghdad University, Iraq.

- Head of Dept. of Veterinary Public Health, College of Veterinary Medicine, Baghdad, Iraq.

* 1970 – 1973:

Ph.D. student, Edinburgh University, UK.

* 1966 – 1967:

- Training course - Bradford University, UK.

*1961 – 1966:

- Lecturer, College of Veterinary Medicine, Baghdad University, Baghdad, Iraq.

NUMBER OF PUBLICATIONS:

(including books and studies): Approx. 100 in international, regional and local journals.

ADDRESS: Visiting Professor School of Biological Sciences, Portland Square, Plymouth University Drake Circus, Plymouth, Devon PL4 8AA, UK.

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MAJOR SCIENTIFIC INTEREST:

I have been involved for the last 25 years in identifying and testing genetic markers for selective breeding for stress and disease resistance; the models are poultry, sheep and cattle with special emphasis on poultry. New genetic markers were found and used to identify resistant individuals.

I have recently been involved in gene identification in cancer and some other inherited diseases research. A grant was obtained from the Iraqi Ministry of Higher Education and Scientific Research for a project on: Identification and Conservation of Animal Genetic Resources and the Establishment of a Gene Bank in Iraq.

OTHER SKILLS:

- Translating and interpreting English/Arabic and vice versa in the fields of agricultural, veterinary and medical sciences. Political and social sciences can be accommodated.

- Statistical analyses (bio and medical statistics).
- Editing scientific reports and theses.

SOME INTERNATIONAL EXPERTISE:

United Nations Food and Agriculture Organization FAO

International Service for National Agricultural Research ISNAR

Arab Organization for Agricultural Development AOAD

United States Civilian Research and Development Foundation CRDF

LIST OF PUBLICATIONS

IN CHRONOLOGICAL ORDER

W.K.AL-MURRANI Prof. of Genetics & Biostatistics (BVM & S., PhD. Edinburgh)

- * Published in English
- 1. Limits to artificial selection. W.K.Al-Murrani, A.B. A. 42:587-592(1974).*
- Genetic Variation in a line of mice selected to its limit for high body weight. W.K.Al-Murrani & R.C.Roberts, British J. for Animal Prod. 19:273-289 (1974).*
- 3. Some studies on vegetable matter and chemical properties of Iraqi wool. W.K.Al-Murrani, Iraqi J. Agric. Sci., Vol. (10), (1975).*
- 4. A study on carcass characteristics of two Jenubi crosses. F.I. Dessouky, W. K. Al-Murrani, A. Y. Lotfi, S N. Singh, M. H. Al-Salman. Technical Rep. No. 13, FAO (1976).*
- A Preliminary study on Charolais X Jenubi crosses W.K. Al-Murrani, F.I. Dessouky, M. M. Hussain, S.M. Kassir, Iraqi J. Agric Sci., Vol. XXI: 3-11 (1976).*
- Incidence of Coliform bacteria in milk and products Baghdad area. A. M. Ashmawy , A.Y. Lotfi, A. M. Abdul Karim, W. K. Al-Murrani. The Iraqi J. Vet. Med., Vol. 1 (1977).
- 7. Maternal effects on embryonic and post- embryonic growth in poultry. W. K. Al- Murrani, British Poultry Science. 19: 277-281 (1978).*
- Some etiological aspects of peptic ulcer in Iraqi population. I. Bahraini, Z. Bahraini, W. K. Al-Murrani, J. Fac. Med., Baghdad, Vol. 20,No. 1:30-37 (1978).*
- Smoking behavior among medical students in the University of Baghdad. T. Al-Saleem, G. Botrous, W. K. Al-Murrani, J. Fac. Med., Baghdad, Vol. 20, No. 1:4-8 (1978).*
- 10. Twinning in Iraqi population and the significance of a family with high twinning rate. W. K. Al-Murrani, Iraqi Med. J., Vol. 26, No. 1 & 2 (1978).*
- 11. The effect of inbreeding on male fertility in mice. W. K. Al-Murrani & H. Al-Sam. 14th Internat. Cong. of Genetics, Moscow (1978).*
- 12. The performance of Imported, Iraqi born and crossbred Friesian on a state farm in Baghdad. W. K. Al-Murrani, 14 Internal. Cong. on Genetics, Moscow (1978); Iraqi J. Vet. Med. Vol. 4: 25-37 (1980).*

- 13. Maternal effect on body weight in mice selected for Large and Small sizes. W.K. Al-Murrani & R.C. Roberts. Genetical Research, 32: (1978).*
- Some observations on the breeding season of Awassi breed in Iraq .R. M. Al-Wahab, W. K. Al-Murrani & J.E. Al-Kass. World Review of Animal Production, Vol. XVIII, No. 3: 57-63 (1982).*
- 15. Incidence of bovine Cysticercosis in Iraq and its impact on meat borne helmenthic zoo noses. A. Y. Lotfi, W.K. Al-Murrani, A. M. Al-Ashmawy. Iraqi Med . J. No. 2 &, Vol. 24: 56-59 (1976).
- Association between Potassium and Hemoglobin type with production and reproduction in Iraqi Awassi sheep. W. K. Al-Murrani & S.H. Al-Samarraee. Proc. of the World Cong.on Sheep and Beef Cattle Breeding. Vol. 1:449-454 (1982).*
- 17. Animal Management (textbook in Arabic).W. K. Al-Murrani, A.K.A. Abdul Karim, R.M. Al-Wahab (1980). (In Arabic) Pub. University of Baghdad.
- Introduction to Quantitative Genetics. Translated from D. S. Falconer (Introduction to Quantitative Genetics). W. K. Al-Murrani (1981). (In Arabic) Pub. University of Baghdad.
- Some fertility aspects of Arabian horses in Iraq. W.K. Al-Murrani & A. J. Rashid. 2nd World Cong.on Genetics applied to livestock production. Madrid, Spain (1982):543-551.*
- 20. Effect of Injecting Amino Acids into the Egg on Embryonic and Subsequent Growth in the Domestic Fowl. W. K. Al-Murrani. British Poultry Sci., 23: 171-174 (1982).*
- 21. The Arabic Agric. Dictionary (16 volumes, in Arabic, English and French). Published by AOAD Khartoum. Al-Murrani, W. K. (Team leader 1982-1988).*
- 22. Principles of Statistics. Al-Mohammed N. T. A. Younis, W. K. Al-Murrani. Baghdad University Press (1986) (in Arabic).
- 23. A comprehensive study on cattle breeds in the Arab World and prospects of Improvement (1983). Al-Murrani, W. K. (Joint author). Published by AOAD Khartoum.
- 24. Cattle Breeding Policy in Somalia. Published by AOAD (in English). Al-Murrani, W. K. (joint author) (1984).*
- 25. Genetics of Disease Resistance in Poultry. W. K. Al-Murrani, J. Agric. & Development in the Arab World. Vol. 2, part (1983).

- 26. Genetics of Some Infertility Problems in Dairy Cattle. W. K. Al-Murrani, J. Agric. & Dev. In the Arab World, Vol. 3, part 1 (1984).
- 27. Dairy Cattle Structure and Prospects of Improvement in Morocco. W.K. Al-Murrani J. Agric & Dev. In the Arab world. Vol. 2, part 4 (1984).
- 28. Sheep Production Program for Farmer Cooperatives. W. K. Al-Murrani, J. Agric. & Dev. In the Arab World. Vol. 3, part 3 (1984).
- 29. Prospects of Sheep and Goat Improvement in the Arab World. W. K. Al-Murrani. Inter. Cong. of Animal Prod. In Arid Zones, Syria, 1985. J. Agric & Dev. In the Arab World, Vol. 5 part 6 (1985).
- 30. Economic and Feasibility Study for Establishing an Integrated project for Dairy Production in Somalia. W. K. Al-Murrani, J. Agric. & Dev. In the Arab World, Vol. 4, part 2 (1985).
- 31. The Economic and Nutritional Values of Animal Production in the Arab World. W.K. Al-Murrani, J. Agric & Dev. In the Arab World. Vol. 4, part (1985).
- 32. The Use of AI in Animal Improvement in the Arab Region. W.K. Al-Murrani. J. of Agric. & Dev. in the Arab World. Vol. 5, part 2: 54-62 (1986).
- 33. Geographical Map of Contagious and Infectious Diseases in the Arab World. W.K. Al-Murrani, J. Agric & Dev. in the Arab World, Vol. 4, part 3 (1985).
- 34. Arab Agriculture Dictionary as Means of Technology Transfer. W.K. Al-Murrani. Presented in the conference of Arabanization in Amman, 1985.
- 35. Prospects of Improving Applied Agricultural Research in Iraq. W.K. Al-Murrani, Proceeding of the Conference on Applied Agric. Research, SRC, Baghdad, 1985.
- 36. Evaluation of Purebred, Crossbred and Local Cattle in the Arab World. W.K. Al-Murrani, J. Agric. & Dev. in the Arab World, Vol. 4, part 4 (1985).
- 37. Connecting Higher Studies with National Development Plans. W.K. Al-Murrani, Presented for the 1989 meeting of the Arab University Union, Amman, Jordan.
- 38. A Study on Utilizing the Experiences of Experts Worked for Regional or International Organizations, W.K.Al-Murrani. Presented to the Ministry of Higher Education Iraq (1989).
- 39. A Study on Reasons of Failures in Higher Studies in Iraq. W.K. Al-Murrani. Presented to the Ministry of Higher Education, Iraq (1987).

- 40. An Organizational Structure for Higher Studies in Iraq. W.K. Al-Murrani. Presented to the Ministry of Higher Education, Iraq (1989).
- 41. The Use of Science and Technology in Developmental Plans. T. Alnaimi, W.K. Al-Murrani. Presented to the Meeting on Science and Development. Sudan (1990).
- 42. Analyses of Research Plans of 1986-1990 in Baghdad University. W.K. Al-Murrani. Presented to the Ministry of Higher Education, Iraq (1990).
- 43. Principles of Biopathology (Translation into Arabic- Joint Group efforts), 1991. Pub: University of Baghdad, Iraq.
- 44. The Inheritance of HB and TF types and its Relation with some Production and Adaptive Traits in Cattle. W.K. Al-Murrani, Y. Al-Timimi. Proc. 0f the 4th World Cong. on Genetics Applied to Livestock Production, Edinburgh, UK, (1990).*
- 45. The Hygienic Properties of Raw Milk produced in Baghdad. A.Hameed, W.K. Al-Murrani (M.Sc. thesis, 1988).
- 46. Prospects of Developing Camel Production in the Arab Region. W.K. Al-Murrani., Proc. of the 1st Iraqi Conference on Camel Production, (1988).
- 47. Sheep Nutritional Requirements according to Morrison Standards in Iraq. S. Al-Tikriti & W.K. Al-Murrani. The Iraqi J. of Vet. Med, Vol. 12:337-344 (1988).
- 48. Genetic Resistance of Iraqi Native and White Leghorn Fowl to <u>Eimeria tenella</u>. W.K. Al-Murrani & S. Al-Dulaimi. IPA J. Agric. Sci. (1996), Vol. 6 No. 1.*
- 49. Resistance to Heat Stress in Local Iraqi and Euro bred Hisex- brown Chickens. W.K. Al- Murrani, A. R. Al-Khalidi, M. H. Injidi. IPA J. Agric Research, Vol. 4, No.2 (1994).*
- 50. A Suggested Program for Sheep Improvement in Iraq. W.K. Al-Murrani. Presented to the Ministry of Agriculture, Iraq (1990).
- 51. A Suggested Plan for Improving Dairy Cattle Production in Iraq. W.K. Al-Murrani. Presented to Ministry of Agriculture in Iraq (1990).
- 52. Strengthening Agriculture Research Management in Iraq. Al-Murrani (team leader). Prepared for AOAD, ISNAR, UNDP (1991) in English.*
- 53. Some Aspects of Genetic Resistance to S. <u>typhimurium</u> in Native Iraqi and White-Leghorn Chickens. W.K. Al-Murrani, H. Hameed, Z. G. Abdul Gani, A. H.Omran. Dirasat (Science Part), Vol. 22 No. 2, 1995 (Jordan).*

- 54. Animal Production in Arab World and Prospects of Improvement. W.K. Al-Murrani. Proc. of Conference on Red Meat Production. Page: 170-184. The Arab Union of Scientific Research Centers, Jordon (1992).
- 55. Channeling Higher Studies Research Activities to National Development Plans. W.K. Al-Murrani. Proc. of the Conference on National Research Management, the Arab Union of Scientific Research Centers, Baghdad: 1-16 (1992).
- 56. The Heterophil / Lymphocyte Ratio as a Selection Criterion for Heat Resistance in Fowls (1997). W.K. Al-Murrani, A. Kassab, H. Z. Al-Sam and A, Al-Athari. Brit. Poult. Sci., Vol. 38, No. 2: 150-163, (1997).*
- 57. Technical and Economic Evaluation for the Use of A. I. versus Embroy Transfer in Cattle. W.K. Al-Murrani, J. of Agric. Develop in Arab World, Vol. 3: 33-39, (1995).
- 58. The Best Policy for Animal Production. W.K. Al-Murrani. J. of Agric. Develop in Arab World. Vol. 4, No. 2:4-9 (1998).
- 59. The Neutrophil/ Lymphocyte Ratio as an Indicator and Selection Criterion for winter and Summer Stress in Sheep. W.K. Al-Murrani, A. H. Al-Dairi, A.R. Al-Rawi. Iraqi J. of Agric.pp: 133-143. (Proc. of the 3rd Sci. Conference on Agri. Res. 5-7 Feb. 2000).*
- 60. The Adaptive significance of Hemoglobin types in different animal species. W.K. Al-Murrani. Iraqi J. of Agric. Vol. 5 No. 1:144-149 (2000)*.
- 61. New Approach for the Calculation of the Cut-off Point (value) in Immunological and Diagnostic Tests. W.K. Al-Murrani, Amirah Al-Shummari, A. Al-Obaidi, A.M. Mustafa. Iraqi J. of Microbiology, Vol. 12 No. 1:1-9 (2000).*
- 62. Heterophil/ Lymphocyte Ratio under High and Low Temperature as a Selection Criterion for Immune Response against Newcastle Antigen in Chickens. Kassab, A.K., H. H. Elaiwi, W.K. Al-Murrani. IPA Journal of Agric. Res., Vol. 10 No. 2:184-187 (2000).*
- 63. Changes in Leukocytic Counts in Resistant and Sensitive Groups of Chickens Selected on the Bases of the Heterophil/ Lymphocyte Ratio. Al-Murrani, W.K., Al-Rawi Ibtisam, K., and Raof Nidhal Mehdi. Presentation in the 4th Cong. for Iraqi J. Agric. Res. Vol. 7, No.:1 (2001).*
- 64. The Inheritance and Distribution of Blood Potassium Level in Iraqi Awassi sheep. Al-Murrani, W.K. Iraqi J. Vet. Med. Vol. 25, No. 2:92-98 (2001) Journal.*
- 65. Genetic Resistance to Salmonella typhimurium in two lines of Chickens on the Bases of Heterophil/ lymphocyte Ratio. Al-Murrani, W.K.,

Al-Rawi Ibtisam K., Nidhal Roaf Mehdi. Brit. Poult. Sci., (2002), Vol. 43, No. 4 (501-507).*

- 66. Grouping into Resistant and Sensitive on the Bases of the Heterophil/ Lymphocyte Ratio for Genetic and Immunological Studies. Al-Murrani, W.K., Iragi J. Biotech, Vol.4, No.1:144-150 (2005).*
- Heterophil/ Lymphocyte Ratio during postnatal stage in Chickens Al-67. Murrani, W.K., Al-Azzawi, T.S., Al-Mosawi, and A.H. Presented for Pub., British Poultry Science (2005).
- The Relation between N/L Ratio and some production parameters in 68. Friesian bulls. Al-Rawi , A.R., Al-Murrani , W.K. , Al-Hamdawi, A. IPA J. Agric. Res., No. 1, Vol. 13, (2003).
- The Relation between N/L Ratio and some production traits in sheep. 69. Al-Rawi, A.R., Al-Murrani, W.K., Al-Hamdawi, A. IPA J. Agric. Res., No. 1, vol. 13, (2003).
- Animal Genetic Resources in Iraq. FAO study (2003), Al-Sherifi, 70. Sawsan, Al-Murrani, W., Al-Kass, J., Al-Rawi, A.A.*
- Association between Heterophil/Lymphocyte ratio, a marker of 71. "resistance" to stress, and some production and fitness traits in chickens. Al-Murrani, W.K., Al-Rawi, A.J., Al-Hadithi, M.F., and Al-Tikriti, B. British Poultry Science, Vol. 47, No. 4 (August 2006) pp. 443-448.*
- 72. Problems of sampling in Epidemiological and disease surveillance studies. W. Al-Murrani. US Civilian Research and Development Foundation (CRDF) Seminar on: Infectious diseases, zoonosis and disease surveillance in Irag. Jordan (16-20 July 2006). *
- The effect of feed restriction on some physiological traits in pure lines 73. of chickens selected on the bases of Heterophil/Lymphocyte ratio. Al-Murrani W K and M. Al Hadithi (PhD thesis- supervision 2006).

SUPERVISED DIPLOMA REVIEWS FOR THE YEARS: 2004-2005

- 1. Genetic bases for disease resistance. 2004
- 2. Genetic bases for thalassemia. 2004
- 3. Genetic Bases for Cancer. 2005
- 4. Genetic bases for leukemia and sickle cell 2005 2005
- 5. Gene therapy

ONGOING SUPERVISED POSTGRADUATE STUDIES

-Association between salivary proline rich protein genes and dental caries (MSc, 2005).

- Genetic biodiversity of some mutations associated with G6PD among Iragi patients and apparently normal groups and their effect on enzyme activity (PhD, 2005).

- Genetic biodiversity of some mutations associated with B-thalassemia among Iraq patients and apparently normal groups (PhD, 2005).

- The effect of feed restriction on Heterophil/Lymphocyte ratio of chickens selected as resistant and sensitive (PhD, 2005).

THE ARAB AGRICULTURAL DICTIONARY

Published: The Arab Organization for Agricultural Development League of Arab States, Sudan (Produced in Arabic, English and French) First Part: Plant Production: Vol 1. Plant production 1981 Vol 2. Plant production 1982 Vol 3. Soil 1982 Vol 4. Plant and Horticulture Prod. 1983 Vol 5. Forestry 1983 Vol 6. Agric. Machinary 1984 Vol 7 Food Industries 1984 Vol 8. Irrigation 1984 Vol 9. Plant Production 1985 Second Part: Animal Production; Vol 1 Animal Production 1981 Vol 2. Veterinary Medicine 1982 Vol 3. Veterinary Medicine 1983 Vol 4. Fisheries and Dairying 1985 Third Part: Agriculture Economics; Vol 1. Statistics 1982 Vol 2. Agriculture Economics 1983 Agriculture Extension Vol 3. And Statistics 1984

BOOKS AND STUDIES

(Author, co-author and translator) Animal byproducts trade directory. Published: Animal Byproducts Trade Organization, Ministry of Trade, Iraq (1961, author).

Animal Management. Published: University of Baghdad (1980, Co-author). Introduction to Genetics. Published: University of Baghdad (1981, author and translator).

Arab Food Security. Published: Arab Organization for Agricultural Development (AOAD), League of Arab States. (1982, co-author).

Arab Agriculture Dictionary (16 volumes). Published: AOAD (co-author, 1982-1984).

Cattle Breeds in Arab Region. Published AOAD (co-author, 1983).

Introduction to Statistics. Published: University of Baghdad (co-author, 1986).

Cattle Production in Somalia. Published: AOAD (co-author, 1984).

Agriculture Research in Iraq. Published: ISNAR (Team leader, 1991).

Biopathology. Published: University of Baghdad (co-translator, 1990).

FAO Agricultural Thesaurus. Published FAO, UN (co-translator, 1990).

Manual for Animal Production in Small Farms. Published: FAO, Iraq (author, 1995).