

Democratic Republic of Congo
OFFICIAL UNIVERSITY OF BUKAVU



Medicine and Pharmacy Faculty

Department of Pharmacy

LIST OF RESEARCH WORK BASED ON PHARMACEUTICAL BIOASSAYS

The laboratory of the Department of Pharmacy regularly, at annual rhythm, proceeds to a number of bioassays investigation on the efficacy of local plant extracts. Plants extracts are checked for their efficacy against diseases, and for their eventual toxicity on guinea pigs, or rabbits. The efficacy of is always compared to a standard drug. The administration of the extracts is either orally or *per os*, at a certain extent, by sub cutaneous injection. We have a number of scientific reports on that. Till now, we have been using not toxic natural molecules. The department does not have the required equipment to handle very toxic and dangerous molecules and cannot manage the toxic wastes. Indeed, our working conditions are not the best and should be improved to reach international standard. However, the Department is ready to welcome any collaboration project that can be benefit to all the partners.

- 1) Pius T. Mpiana¹, Blaise K. Lombe, **Aladdin M. Ombeni**, Koto-Te-Nyiwa Ngbolua, Damien S. T. Tshibangu, Louissette K. Wimba, Dorothee D.Tshilanda¹, Felicien K. Mushagalusa, Sévérin K. Muyisa In Vitro Sickling Inhibitory Effects and Anti-Sickle Erythrocytes Hemolysis of *Dicliptera colorata* C. B. Clarke, *Euphorbia hirta* L. and *Sorghum bicolor* (L.) Moench dans Open Journal of Blood Diseases, 2013, 3, 43-48 doi:10.4236/ojbd.2013.31009 <http://www.scirp.org/journal/CTA.aspx?paperID=29314>
- 2) M.F. Kasali, **A.O. Mahano**, F.M. Bwironde, A.C. Amanib, J.D. Mangambu, D.S Nyakabwa, L.K. Wimba, D.S.T. Tshibangu, K.N. Ngbolua, J.K.Kambale, P.T. Mpiana. Ethnopharmacological survey of plants used against diabetes in Bukavu city (D.R. Congo) (The Journal of Ethnobiology and Traditional Medicine). Photon ISJN: 6642-3194 [http://www.researchgate.net/publication/257207008 Ethnopharmacological survey of plants used against diabetes in Bukavu city \(D.R. Congo\)](http://www.researchgate.net/publication/257207008_Ethnopharmacological_survey_of_plants_used_against_diabetes_in_Bukavu_city_(D.R._Congo))
- 3) Benjamin Bavhure, Félicien M. Kasali, **Aladdin O. Mahano**, Kazadi Minzangi, Amani Matabaro, Ithe Mwanga and Justin N. Kadima Fatty Acid Composition of *Lebrunia*

bushiae Staner and Tephrosia vogelii Hook.f. Seed Oils. European Journal of Medicinal Plants, 2014 <http://www.sciencedomain.org/abstract.php?iid=474&id=13&aid=4192>

4) Chimanuka Bantuzeko, **Ombeni M.A** Le contrôle de la qualité des médicaments et des aliments en République Démocratique du Congo à partir du vécu dans la ville de Bukavu (Sud-Kivu) ; Référence (Actes de conférences Universitaires de Bukavu-28-29 juin 2010, Pour Bâtir un Congo plus beau ; Université Officielle de Bukavu ; point de vu Le Harmattan 2010) **ISBN : 978-2-296-96314-6** <http://www.editions-harmattan.fr/index.asp?navig=catalogue&obj=livre&no=36732>

5) Evaluation of compliance and adherence to artesunate - amodiaquine in hospitalized patients at university clinics in Bukavu

6) Benjamin Z. Gbolo, Damien S.T. Tshibangu, Patrick Memvanga, Gédéon N. Bongo, Félicien M. Kasali, K.N. Ngbolua, Félicien L. Lokoki, Pius T. Mpiana. Assessment of the efficacy and tolerance of Drepanoalpha® in the management of sickle cell disease in Kinshasa (DR. Congo): about ten cases. International Journal of Medical and Pharmaceutical Case Reports 2017; 9(2): 1-10, 2017. NLM ID: 101648033.

7) Gbolo BZ, Asamboia LS, Bongo GN, Tshibangu DST, Kasali FM, Memvanga PB, Ngbolua KN, Mpiana PT. Bioactivity and chemical analysis of Drepanoalpha®: An anti-sickle cell anemia poly-herbal formula from Congo-Kinshasa. American Journal of Phytomedicine and Clinical Therapeutics 2017; 5:1. DOI: 10.21767/2321-2748.100319.

8) Kasali FM, Fokunang CN, Ngoupayo J, Njinkio NBL, Kadima JN, Ngadjui BT. Phytochemical and zootechnical studies of Physalis peruviana L. leaves in Streptozotocin-induced Diabetic Rats. Accepted for publication in Journal of Pharmacognosy and Phytotherapy.

9) Félicien M. Kasali, Charles Ntungwen Fokunang, Joseph Ngoupayo, Estella Tembe-Fokunang, Bathelemy Ngameni, Borgia Njinkio, Frederick Kechia, Justin N. Kadima, Tsague Marthe, Oyono Victor, Wilfred Mbacham, Bonaventure Tchaleu Ngadjui. Evaluation of the Antidiabetic Properties of Hydro-Alcoholic Extract and Its Fractions from Physalis peruviana L. Leaves on Streptozotocin-Induced Diabetic Wistar Rats. Journal of Diseases and Medicinal Plants 2016; 2(6): 67-73.

10) Félicien M. Kasali, Adrien T Masunda, Justine K Madarhi, Archimède B Matambura, Damien ST Tshibangu, Koto-Te-Nyiwa Ngbolua, Justin N Kadima and Pius T Mpiana. Assessment of antidiabetic activity and acute toxicity of leaf extracts from

Solanum nigrum L. (Solanaceae) in guinea-pigs. *International Journal of Herbal Medicine* 2016; 4(6): 14-19.

11) Ngoupayo J, Daleu Tcheuffa M, Ntsama Essomba C, Kasali FM, Ndelo J. Phytochemical screening and antibacterial profile of hydroalcoholic extracts from cloves of *Cola nitida* Schott & Endl. *Int. J. Appl. Pharm. Biol. Chem.* 2016; 5(3): 314-321.

12) PT Mpiana, FM Kasali, F Bwirhonde, BZ Gbolo, DST Tshibangu, KN Ngbolua, PB Memvanga, JN Kadima. Acute and Sub-acute Oral Toxicity Study of Drepanoalpha® (A Poly-Herbal Formula Used in the Management of Sickle Cell Disease) in Guinea-Pigs. *British Journal of Pharmaceutical Research* 2016; 10(5): 1-8. Article no.BJPR.242008. JN Kadima, FM Kasali, B Bavhure, AO Mahano, FM Bwironde. Comparative Antidiabetic Potential and Survival Function of *Harungana madagascariensis*, *Physalis peruviana*, *Solanum americanum* and *Tithonia diversifolia* extracts on alloxan-induced diabetes in guinea-pigs. *International Journal of Pharmacy and Pharmaceutical Research. Human* 2016; 5(3): 196-206.

13) Félicien Mushagalusa Kasali, Fidele Murhambe Wendo, Sévérin Kavatsurwa Muyisa, Justin Ntokamunda Kadima. Comparative Hypoglycemic Activity of Flavonoids and Tannins Fractions of *Stachytarpheta indica* (L.) Vahl Leaves Extracts in Guinea-Pigs and Rabbits. *International Journal of Pharmacy and Pharmaceutical Research. Human* 2016; 5(2): 48-57.

14) NJ Kadima, AB Marhegeko, FM Kasali, NJ Mugaruka. Medicinal Plants Used in Alternative Medicine to Treat Cancer in Bukavu. *European Journal of Medicinal Plants* 2016; 12(3): 1-13.

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16) Ngoupayo Joseph, Nteme Ebene Mathieu Sorel, Félicien Mushagalusa Kasali, Mpondo Mpondo Emmanuel. Phytochemical screening and antibacterial properties from extract of *Alchornea cordifolia* (Schumach. &Thonn.) Müll. Arg. *Journal of Pharmacognosy and Phytochemistry* 2015; 4(3): 176-180.

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19) KN Ngbolua, PT Mpiana, DST Tshibangu, PP Mazasa, BZ Gbolo, EK Atibu, JN Kadima, FM Kasali. In vitro anti-sickling and radical scavenging activity of a polyherbal formula (Drepanopha®) and acute toxicity study in Wistar albinos. *European Journal of Medicine Plant* 2014; 4(10): 1251-1267.

20) Benjamin Bavhure, Félicien M. Kasali, Aladdin O.Mahano, Kazadi Minzangi, Amani Matabaro, Ithe Mwanga and Justin N. Kadima. Fatty Acid Composition of *Lebrunia bushiae* Staner and *Tephrosia vogelii* Hook.f. Seed Oils. *European Journal of Medecinal Plants* 2014; 4(7): 858-867.

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22) F.M. Kasali, A.O. Mahano, D.S. Nyakabwa, L.J. Kadima, F.M. Misakabu, D.S.T. Tshibangu, K. N. Ngbolua and P. T. Mpiana. Ethnopharmacological survey of plants used against malaria in Bukavu city (D.R. Congo). *European Journal of Medicinal Plants* 2014; 4(1): 29-44.

23) Mangambu Mokoso Jean de Dieu, Félicien Mushagalusa Kasali, Kadima Ntokamunda Justin. Contribution à l'étude phytochimique de quelques plantes médicinales antidiabétiques de la ville de Bukavu et ses environs (Sud-Kivu, R.D.Congo). *Journal of Applied Biosciences* 2014 ; 75:6211– 6220.

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- 25) Félicien Mushagalusa Kasali, Justin Ntokamunda Kadima, Pius Tshimankinda Mpiana, Koto-te-Nyiwa Ngbolua and Damien Sha-Tshibey Tshibangu. Assessment of antidiabetic activity and acute toxicity of leaf extracts from *Physalis peruviana* (L.) in guinea-pig. *Asian Pac J Trop Biomed* 2013; 3(11): 885-890.
- 26) FM. Kasali, AO. Mahano, FM. Bwironde, AC. Amani, JD. Mangambu, DS Nyakabwa, LK. Wimba, DST. Tshibangu, KN. Ngbolua, JK. Kambale, PT. Mpiana. Ethnopharmacological survey of plants used against diabetes in Bukavu city (D.R. Congo). *The Journal of Ethnobiology and Traditional Medicine. Photon* 2013; 119: 538-546.
- 27) Pius T. Mpiana, Blaise K. Lombe, Aladdin M. Ombeni, Koto-Te-Nyiwa Ngbolua, Damien S. T. Tshibangu, Louissette K. Wimba, Dorothée D. Tshilanda, Félicien K. Mushagalusa, Sévérin K. Muyisa. In Vitro Sickling Inhibitory Effects and Anti-Sickle Erythrocytes Hemolysis of *Dicliptera colorata* C. B. Clarke, *Euphorbia hirta* L. and *Sorghum bicolor* (L.) Moench. *Open Journal of Blood Diseases* 2013; 3: 43-48.
- 28) Jean-Claude Mwanga Mwanga Ithe, Gérard Imani Mugisho, Pazo Wabika Dumbo, Félicien Mushagalusa Kasali et Jean de Dieu Mangambu Mokoso. Contribution à la connaissance de la diversité et endémisme des Rubiaceae du Parc National de Kahuzi-Biega à l'Est de la R.D. Congo. *Int. J. Biol. Chem. Sci.* 2013; 7(5) : 2092-2105.
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- 30) Aladdin Ombeni Mahano, Benjamin Bavorhe Zirirane, Lucien Murhula Namegabe, Félicien Mushagalusa Kasali, Franklin Bwirhonde et Jacqueline Plaizier Vercammen. Validation de la méthode d'analyse de la crème hydrophile à 1% d'acétate d'hydrocortisone. *Annales Sci. & Sci. Appl. U.O.B* 2012; 3(2) : 138-146.

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