# CURRICULUM VITAE

# Khadija Abo-Alkasem Al-Mabrok Akasha

Personal Information	<ul> <li>Date of Birth: February, 19,1986 in Yugoslavia.</li> <li>Address: Samno – Sebha- Libya</li> <li>Mobile: +218923088540</li> <li>E- Mail khadijaakasha2@ gmail.com</li> </ul>
Academic Background	<ul> <li>Bachelor degree – of Medical Laboratory. "Very Good" 2009.</li> <li>Faculty of Engineering Sciences and Technology Sebha University Libya</li> <li>M.Sc. degree in Biochemistery and clinical chemistery (2014).</li> <li>Faculty of Veterinary - Benha University - Egypt</li> <li>Reserch title. Biochemical studies on ulcerative colitis</li> </ul>
Languages	<ul> <li>Native language Arabic</li> <li>English: good written and spoken.</li> <li>Local TOEFL Test ( score Records 450 ) Benha univeristy.</li> </ul>
Computer skills	<ul> <li>Word – windows – Introduction to computer - Benha univeristy.</li> <li>Very Good Knowledge of Windows, Excel, Power point, Net, Microsoft Word.</li> <li>Well known knowledge of Access, Out look</li> </ul>

#### **Others:**

### Research that has been published

**Title:** Anti-inflammatory and anti-oxidant effects of rutin on 2, 4, 6-

trinitrobenzenesulfonic acid (TNBS) induced ulcerative colitis in rats.

Authors: Samy Ali Hussein; Omayma A.R. AbouZaid; Abdel-Maksoud, H.A. and

Khadija, A.A. Akasha

Benha Vet. Med. J., Vol.27, No. (1):208-220 09/2014; 27(1):208-220.

**ABSTRACT:** In the present study, the biochemical effect of rutin (RUT) administration on serum nitric oxide (NO), tumor necrosis factor- $\alpha$  (TNF- $\alpha$ ) and interleukin-1 $\beta$  (IL-1 $\beta$ ). Also, colon tissue of lipid peroxidation, antioxidant enzymes, reduced glutathione (GSH), and myeloperoxidase (MPO) activity in TNBS-induced colon erosion rats have been evaluated. This study was carried out on 40 male rats. The rats were divided into four equal groups of 10 rats each. Group I:( Control group): received no drugs. Group  $\Pi$ :( ulcerative colitis non-treated group): Administration of a single intra-colonially dose of 150 mg/kg of TNBS for ulcerative colitis induction. Group III:( ulcerative colitis + RUT protected group): received RUT orally in a daily dose of 200 mg/kg body weight for 21 days prior TNBS for ulcerative colitis induction. Group IV:( ulcerative colitis + RUT treated group): treated with RUT orally in a daily dose of 200 mg/kg body weight for 21 days after ulcerative colitis induction. The results showed that TNBS-induced colon damage caused significant decreased in serum NO concentration and GPX, SOD, GST, CAT activities in colon mucosa tissue. On the other hand, a marked increase in GR, GSH, L-Malondialdehyde (L-MAD), TNF- $\alpha$ , IL-1 $\beta$  and MPO activity were observed in TNBS induced colon damage.

Rutin was able to mitigate colon mucosa damage induced by TNBS through increasing of NO, GPX, SOD, CAT, and GST in addition to decreasing L-MDA, TNF- $\alpha$ , IL-1 $\beta$  and MPO activity in colon tissue. These results suggest that, rutin may be effective in enhances the healing of ulcerative colitis by its radical scavenging and anti-inflammatory effect, inhibited neutrophil accumulation, and regenerating endogenous antioxidant mechanisms.

## Research that has been under Publishing

Title: Colon protective, anti apoptotic and anti-inflammatory effect of resveratrol

on 2, 4, 6-trinitrobenzene sulfonic acid induced ulcerative colitis in rats

**Authors:** Samy Ali Hussein; Omayma A.R. Abou Zaid; Abdel-Maksoud, H.A. and

Khadija, A.A. Akasha

**ABSTRACT:** In the present study, the potential protective and therapeutic effect of resveratrol (RES) administration on serum nitric oxide, colon tissue L-Malondialdehyde, enzymatic and non-enzymatic antioxidant, NF-kB P65, serum tumor necrosis factor-alpha, interleukin-1β, colon tissue myeloperoxidase activity, sialic acid, in addition to DNA fragmentation, caspase-3, 8-hydroxy-2 deoxyguanosine, cyclo oxygenase-2 and Lactate dehydrogenase in trinitrobenzene sulfonic acid (TNBS)-induced ulcerative colitis in rats have been evaluated. Fourty male albino rats were divided into four equal groups of 10 rats each. Group I: (Control group): received no drugs. Group Π: (

ulcerative colitis -induced group): Administered single intra-colonially dose of 150 mg/kg of TNBS for ulcerative colitis induction. Group III: (ulcerative colitis + RES protected group): received RES (10 mg/kg b.wt) on 14<sup>th</sup> day for 1 week, then ulcerative colitis was induced by TNBS on 21<sup>th</sup> day. Group IV: (ulcerative colitis + RES treated group): ulcerative colitis in the rats were induced by TNBS on 15<sup>th</sup> day of the experiment and after 24 hours of TNBS administration treatment with resveratrol (10 mg/kg b.wt) began for 1 week. Blood samples and colon tissue were collected at the 22<sup>th</sup> day from the onset of RES administration. The obtained results showed that, TNBS-induced ulcerative colitis caused significant decreased in serum NO level, sialic acid concentration and Glutathione peroxidase (GPx), Superoxide dismutase (SOD), Glutathione –S- transferase (GST), catalase (CAT) activities in colon tissue. On the other hand, a non-significant increase in colon tissue Glutathione reductase (GR) and a significant increase in colon tissue MPO activities, nuclear factor kB P65 activity, GSH and L-Malondialdehyde (L-MAD) concentrations, DNA fragmentation, caspase-3, 8-hydroxy-2 deoxyguanosine, cyclo oxygenase- 2 activity and in serum TNF-α, IL-1β levels and lactate dehydrogenase (LDH) were observed in TNBS induced colitis in rats.

Resveratrol was able to mitigate colon mucosa damage induced by TNBS through increasing of serum NO and sialic acid, colon tissue GPX, SOD, CAT and GST in addition to decreasing in serum TNF- $\alpha$ , IL-1 $\beta$  and LDH and L-MDA, NFkB P65, GR, GSH, MPO activity, DNA fragmentation, caspase-3, 8-hydroxy-2 deoxyguanosine, cyclo oxygenase- 2 activity in colon tissue. These results suggest that, resveratrol may be effective in enhances the healing of ulcerative colitis by its radical scavenging and anti-inflammatory effect, inhibited neutrophil accumulation, and regenerating endogenous antioxidant mechanisms.

**Title:** Biochemical effect of curcumin on ulcerative colitis in rats

**Authors:** Samy Ali Hussein; Omayma A.R. Abou Zaid; Abdel-Maksoud, H.A. and

Khadija, A.A. Akasha

**ABSTRACT:** In the present study, the potential protective and therapeutic effect of curcumin (CUR) administration on serum nitric oxide, colon tissue L-Malondialdehyde, enzymatic and non-enzymatic antioxidant, NF-kB P65, serum tumor necrosis factor-alpha, interleukin-1β, colon tissue myeloperoxidase activity, sialic acid, in addition to DNA fragmentation, caspase-3, 8-hydroxy-2 deoxyguanosine, cyclo oxygenase-2 and Lactate dehydrogenase in trinitrobenzene sulfonic acid (TNBS)-induced ulcerative colitis in rats have been evaluated. Fourty male albino rats were divided into four equal groups of 10 rats each. Group I: (Control group): received no drugs. Group Π: ( ulcerative colitis -induced group): Administered single intra-colonially dose of 150 mg/kg of TNBS for ulcerative colitis induction. Group III: (ulcerative colitis + CUR protected group): Rats received curcumin (100 mg/kg body weight/day) orally for 21 days prior TNBS administration. Group IV: (ulcerative colitis + CUR treated group): The UC in the rats were induced by TNBS at the first day of experiment, after 24 hours curcumin treatment (100 mg/kg b.wt/day) orally will be started for 21 days. Blood samples and colon tissue were collected at the 22th day from the onset of CUR administration. The obtained results showed that, TNBS-induced ulcerative colitis caused significant decreased in serum NO level, sialic acid concentration and Glutathione peroxidase (GPx), Superoxide dismutase (SOD), Glutathione –S- transferase (GST), catalase (CAT) activities in colon tissue. On the other hand, a non-significant increase in colon tissue Glutathione reductase (GR) and a significant increase in colon tissue MPO activities, nuclear factor kB P65 activity, GSH and L-

Malondialdehyde (L-MAD) concentrations, DNA fragmentation, caspase-3, 8-hydroxy-2 deoxyguanosine, cyclo oxygenase- 2 activity and in serum TNF-α, IL-1β levels and lactate dehydrogenase (LDH) were observed in TNBS induced colitis in rats. Curcumin was able to mitigate colon mucosa damage induced by TNBS through increasing of serum NO and sialic acid, colon tissue GPX, SOD, CAT and GST in addition to decreasing in serum TNF-α, IL-1β and LDH and L-MDA, NFkB P65, GR, GSH, MPO activity, DNA fragmentation, caspase-3, 8-hydroxy-2 deoxyguanosine, cyclo oxygenase- 2 activity in colon tissue. These results suggest that, curcumin may be effective in enhances the healing of ulcerative colitis by its radical scavenging and anti-inflammatory effect, inhibited neutrophil accumulation, and regenerating endogenous antioxidant mechanisms.

**Title:** Colon protective, anti apoptotic and anti-inflammatory effect of rutin on

2, 4, 6-trinitrobenzene sulfonic acid induced ulcerative colitis in rats

Authors: Samy Ali Hussein; Omayma A.R. Abou Zaid; Abdel-Maksoud, H.A.

and Khadija, A.A. Akasha

**ABSTRACT:** In the present study, the potential protective and therapeutic effect of rutin (RUT) administration on serum nitric oxide, colon tissue L-Malondialdehyde, enzymatic and non-enzymatic antioxidant, NF-kB P65, serum tumor necrosis factor-alpha, interleukin-1β, colon tissue myeloperoxidase activity, sialic acid, in addition to DNA fragmentation, caspase-3, 8-hydroxy-2 deoxyguanosine, cyclo-oxygenase-2 and Lactate dehydrogenase in trinitrobenzene sulfonic acid (TNBS)-induced ulcerative colitis in rats have been evaluated. Fourty male albino rats were divided into four equal groups of 10 rats each. Group I :( Control group): received no drugs. Group Π :( ulcerative colitis -induced group): Administered single intra-colonially dose of 150 mg/kg of TNBS for ulcerative colitis induction. Group III: (ulcerative colitis + RUT protected group): received RUT (200 mg/kg body weight/day) orally for 21 days prior TNBS administration for ulcerative colitis induction. Group IV: (ulcerative colitis + RUT treated group): treated with RUT as in group III for 21 days after ulcerative colitis induction. Blood samples and colon tissue were collected at the 22<sup>th</sup> day from the onset of RUT administration. The obtained results showed that, TNBS-induced ulcerative colitis caused significant decreased in serum NO level, sialic acid concentration and Glutathione peroxidase (GPx), Superoxide dismutase (SOD), Glutathione –S- transferase (GST), catalase (CAT) activities in colon tissue. On the other hand, a non-significant increase in colon tissue Glutathione reductase (GR) and a significant increase in colon tissue MPO activities, nuclear factor kB P65 activity, GSH and L-Malondialdehyde (L-MAD) concentrations, DNA fragmentation, caspase-3, 8-hydroxy-2 deoxyguanosine, cyclo-oxygenase- 2 activity and in serum TNF-α, IL-1β levels and lactate dehydrogenase (LDH) were observed in TNBS induced colitis in rats.

Rutin was able to mitigate colon mucosa damage induced by TNBS through increasing of serum NO and sialic acid, colon tissue GPX, SOD, CAT and GST in addition to decreasing in serum TNF- $\alpha$ , IL-1 $\beta$  and LDH and L-MDA, NF-kB P65, GR, GSH, MPO activity, DNA fragmentation, caspase-3, 8-hydroxy-2 deoxyguanosine, cyclo-oxygenase- 2 activity in colon tissue. These results suggest that, rutin may be effective in enhances the healing of ulcerative colitis by its radical scavenging and anti-inflammatory effect, inhibited neutrophil accumulation, and regenerating endogenous antioxidant mechanisms.