



***Associazione Italiana per lo Studio  
della Familiarità ed Ereditarietà  
dei Tumori Gastrointestinali***

G.N. Ranzani: [guglielmina.ranzani@unipv.it](mailto:guglielmina.ranzani@unipv.it)

# A.I.F.E.G. - history of the Association

- the A.I.F.E.G. was officially founded in Verona in July 2002
- but it can be traced back to “the Italian study group on hereditary colorectal cancers” established in 1993
  - the group included physicians, as well as clinical and basic researchers from different institutions all over the country
  - since 1993 the group organized an annual national meeting in order to encourage the exchange of information, clinical experiences and scientific thoughts



*Cristina Oliani*

# The founding fathers of the Italian study group



**Maurizio Ponz de Leon**  
(University of Modena)



**Lucio Bertario**  
(Cancer Institute-INT, Milano)



# A.I.F.E.G. - Aims

- To promote:
  - research activity on genetic factors predisposing to gastrointestinal tumors
  - research activity on tumor prevention and treatment
  - collaborative projects on basic, pre-clinical, and clinical research
  - exchanges and collaborations for closing the gaps from knowledge to practice and putting knowledge into action
  - dissemination of the acquired knowledge at different levels

# A.I.F.E.G.

- was the first Italian association aimed at investigating hereditary gastrointestinal tumors
- was conceived as a multidisciplinary resource for studying hereditary gastrointestinal tumors thoroughly, optimizing diagnosis and treatment
- was founded in the context of the Italian health system (not always ready to accept a multidisciplinary approach in health research and services)
- in spite of some difficulties and challenges, it has become a reference point for medical geneticists and physicians of different disciplines to understand better how to manage patients and families at risk



Associazione Italiana per lo Studio della Familiarità ed Ereditarietà dei Tumori Gastrointestinali

[HOME](#)

[L'ASSOCIAZIONE](#) ▾

[AIFEG PER I SOCI](#) ▾

[AIFEG PER I PAZIENTI](#) ▾

[LINKS UTILI](#)



Associazione Italiana per lo Studio della Familiarità ed Ereditarietà dei Tumori Gastrointestinali



PROSSIMI EVENTI



CENTRI AIFEG



COME ASSOCIARSI



CONTATTI

**2017**

Abou Khouzam R, Molinari C, Salvi S, Marabelli M, Molinaro V, Orioli D, Saragoni L, Morgagni P, Calistri D, Ranzani GN. Digital PCR identifies changes in CDH1 (E-cadherin) transcription pattern in intestinal-type gastric cancer.

**Oncotarget**. 2017 Mar 21;8(12):18811-18820. doi: 10.18632/oncotarget.13401.

Viel A, Bruselles A, Meccia E, Fornasarig M, Quaia M, Canzonieri V, Policicchio E, Urso ED, Agostini M, Genuardi M, Lucci-Cordisco E, Venesio T, Martayan A, Diodoro MG, Sanchez-Mete L, Stigliano V, Mazzei F, Grasso F, Giuliani A, Baiocchi M, Maestro R, Giannini G, Tartaglia M, Alexandrov LB, Bignami M. A Specific Mutational Signature Associated with DNA 8-Oxoguanine Persistence in MUTYH-defective Colorectal Cancer.

**EBioMedicine**. 2017 Jun;20:39-49. doi: 10.1016/j.ebiom.2017.04.022. Epub 2017 Apr 13.

Carnevali I, Libera L, Chiaravalli A, Sahnane N, Furlan D, Viel A, Cini G, Cimetti L, Rossi T, Formenti G, Ghezzi F, Riva C, Sessa F, Tibiletti MG. Somatic Testing on Gynecological Cancers Improve the Identification of Lynch Syndrome.

**Int J Gynecol Cancer**. 2017 May 2. doi: 10.1097/IGC.0000000000001010. [Epub ahead of print]

Libera L, Sahnane N, Carnevali IW, Cimetti L, Cerutti R, Chiaravalli AM, Riva C, Tibiletti MG, Sessa F, Furlan D. Microsatellite analysis of sporadic and hereditary gynaecological cancer in routine diagnostics.

**J Clin Pathol**. 2017 Apr 17. pii: jclinpath-2017-204348. doi: 10.1136/jclinpath-2017-204348. [Epub ahead of print]

Mariani F, Boarino V, Bertani A, Merighi A, Pedroni M, Rossi G, Mancini S, Sena P, Benatti P, Roncucci L. Myeloperoxidase-positive cell infiltration of normal colorectal mucosa is related to body fatness and is predictive of adenoma occurrence.

**Int J Obes (Lond)**. 2017 Jun;41(6):982-985. doi: 10.1038/ijo.2017.80. Epub 2017 Mar 30.

de Leon MP, Pedroni M, Roncucci L, Domati F, Rossi G, Magnani G, Pezzi A, Fante R, Bonetti LR. Attenuated polyposis of the large bowel: a morphologic and molecular approach.

**Fam Cancer**. 2017 Apr;16(2):211-220. doi: 10.1007/s10689-016-9938-9.

Furlan D, Trapani D, Berrino E, Debernardi C, Panero M, Libera L, Sahnane N, Riva C, Tibiletti MG, Sessa F, Sapino A, Venesio T. Oxidative DNA damage induces hypomethylation in a compromised base excision repair colorectal tumourigenesis.

**Br J Cancer**. 2017 Mar 14;116(6):793-801. doi: 10.1038/bjc.2017.9.

Mancini S, Mariani F, Sena P, Benincasa M, Roncucci L. Myeloperoxidase expression in human colonic mucosa is related to systemic oxidative balance in healthy subjects.

**Redox Rep**. 2017 Jan 9:1-9. doi: 10.1080/13510002.2016.1277049. [Epub ahead of print]

Ricci MT, Miccoli S, Turchetti D, Bondavalli D, Viel A, Quaia M, Giacomini E, Gismondi V, Sanchez-Mete L, Stigliano V, Martayan A, Mazzei F, Bignami M, Bonelli L, Varesco L. Type and frequency of MUTYH variants in Italian patients with suspected MAP: a retrospective multicenter study.

**J Hum Genet**. 2017 Feb;62(2):309-315. doi: 10.1038/jhg.2016.132

Scarpa A, Chang DK, Nones K, Corbo V, et al. Whole-genome landscape of pancreatic neuroendocrine tumours.

**Nature**. 2017 Mar 2;543(7643):65-71. doi: 10.1038/nature21063.

Smyth EC, Wotherspoon A, Peckitt C, Gonzalez D, Hulkki-Wilson S, Eltahir Z, Fassan M, Rugge M, Valeri N, Okines A, Hewish M, Allum W, Stenning S, Nankivell M, Langley R, Cunningham D. Mismatch Repair Deficiency, Microsatellite Instability, and Survival : An Exploratory Analysis of the Medical Research Council Adjuvant Gastric Infusional Chemotherapy (MAGIC) Trial.

**JAMA Oncol**. 2017 Feb 23. doi: 10.1001/jamaoncol.2016.6762. [Epub ahead of print]



RESEARCH

Open Access



# Aberrant DNA methylation profiles of inherited and sporadic colorectal cancer

Nora Sahnane<sup>1</sup>, Francesca Magnoli<sup>1</sup>, Barbara Bernasconi<sup>1</sup>, Maria Grazia Tibiletti<sup>2</sup>, Chiara Romualdi<sup>3</sup>, Monica Pedroni<sup>4</sup>, Maurizio Ponz de Leon<sup>4</sup>, Giulia Magnani<sup>4</sup>, Luca Reggiani-Bonetti<sup>5</sup>, Lucio Bertario<sup>6</sup>, Stefano Signoroni<sup>6</sup>, Carlo Capella<sup>1</sup>, Fausto Sessa<sup>1</sup>, Daniela Furlan<sup>1</sup> and AIFEG



**Collaborative studies**

REVIEW

# Immunohistochemical evaluation of mismatch repair proteins in colorectal carcinoma: the **AIFEG**/GIPAD proposal

A. REMO<sup>1\*</sup>, M. FASSAN<sup>2\*</sup>, G. LANZA<sup>1,2</sup> ON BEHALF OF AIFEG AND GIPAD

<sup>1</sup> Italian Association studying Familial and Hereditary Gastrointestinal Tumors (AIFEG): Chair: GB. Rossi. Directive members: D.Barana, B. Bonanni, M. Pedroni, A. Remo, E.D. Urso, M. Vitellaro; <sup>2</sup> Italian Group of Gastrointestinal Pathologists (GIPAD): Chairs: M. Guido & L. Saragoni. Scientific committee: F.P. D'Armiento, M. Fassan, L. Mastracci

\* These authors contributed equally to this work.

Collaborative studies

Digestive and Liver Disease 45 (2013) 606–611

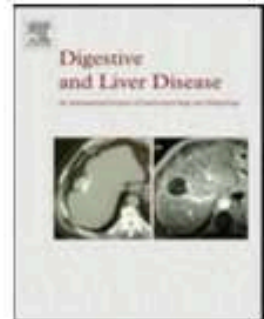


ELSEVIER

Contents lists available at SciVerse ScienceDirect

## Digestive and Liver Disease

journal homepage: [www.elsevier.com/locate/dld](http://www.elsevier.com/locate/dld)



### Oncology

## Cancer risk associated with *STK11/LKB1* germline mutations in Peutz–Jeghers syndrome patients: Results of an Italian multicenter study

Nicoletta Resta<sup>a,\*</sup>, Daniela Pierannunzio<sup>b</sup>, Gennaro Mariano Lenato<sup>c</sup>, Alessandro Stella<sup>a</sup>, Riccardo Capocaccia<sup>b</sup>, Rosanna Bagnulo<sup>a</sup>, Patrizia Lastella<sup>c</sup>, Francesco Claudio Susca<sup>a</sup>, Cristina Bozzao<sup>a</sup>, Daria Carmela Loconte<sup>a</sup>, Carlo Sabbà<sup>c,d</sup>, Emanuele Urso<sup>e</sup>, Paola Sala<sup>f</sup>, Mara Fornasarig<sup>g</sup>, Paola Grammatico<sup>h</sup>, Ada Piepoli<sup>i</sup>, Cristina Host<sup>j</sup>, Daniela Turchetti<sup>k</sup>, Alessandra Viel<sup>l</sup>, Luigi Memo<sup>m</sup>, Laura Giunti<sup>n</sup>, Vittoria Stigliano<sup>o</sup>, Liliana Varesco<sup>p</sup>, Lucio Bertario<sup>f</sup>, Maurizio Genuardi<sup>q,r</sup>, Emanuela Lucci Cordisco<sup>s</sup>, Maria Grazia Tibiletti<sup>t</sup>, Carmela Di Gregorio<sup>u</sup>, Angelo Andriulli<sup>i</sup>, Maurizio Ponz de Leon<sup>v</sup>, AIFEG



## Criteria and prediction models for mismatch repair gene mutations: a review.

Win AK<sup>1</sup>, Macinnis RJ, Dowty JG, Jenkins MA.

### ⊕ Author information

#### Abstract

One of the strongest predictors of colorectal cancer risk is carrying a germline mutation in a DNA mismatch repair (MMR) gene. Once identified, mutation carriers can be recommended for intensive screening that will substantially reduce their high colorectal cancer risk. Conversely, the relatives of carriers identified as non-carriers can be relieved of the burden of intensive screening. Criteria and prediction models that identify likely mutation carriers are needed for cost-effective, targeted, germline testing for MMR gene mutation. We reviewed 12 criteria/guidelines and 8 prediction models (Leiden, Amsterdam-plus, Amsterdam-alternative, MMRpro, PREMM1,2,6, MMRpredict, Associazione Italiana per lo studio della Familiarità ed Ereditarietà dei tumori

Gastrointestinal (AIFEG) and the Myriad to identify individuals with colorectal cancer. MMRpredict and Myriad tables can predict. We conducted a meta-analysis of the data. The estimate for the area under curve was 0.85 (95% CI 0.81 to 0.88) for PREMM, and we cannot state that one model has a higher performance. It has been shown to be sensitive and specific. It can provide prediction of PMS2 mutations, family history, and be applicable to all patients.

Clin Genet. 2006 Mar;69(3):254-62.

## A genetic model for determining MSH2 and MLH1 carrier probabilities based on family history and tumor microsatellite instability.

Marroni F<sup>1</sup>, Pastrello C, Benatti P, Torrini M, Barana D, Cordisco EL, Viel A, Mareni C, Oliani C, Genuardi M, Bailey-Wilson JE, Ponz de Leon M, Presciuttini S.

### ⊕ Author information

#### Abstract

Mutation-predicting models can be useful when deciding on the genetic testing of individuals at risk and in determining the cost effectiveness of screening strategies at the population level. The aim of this study was to evaluate the performance of a newly developed genetic model that incorporates tumor microsatellite instability (MSI) information, called the AIFEG model, and in predicting the presence of mutations in MSH2 and MLH1 in probands with suspected hereditary non-polyposis colorectal cancer. The AIFEG model is based on published estimates of mutation frequencies and cancer penetrances in carriers and non-carriers and employs the program MLINK of the FASTLINK package to calculate the proband's carrier probability. Model performance is evaluated in a series of 219 families screened for mutations in both MSH2 and MLH1, in which 68 disease-causing mutations were identified. Predictions are first obtained using family history only and then converted into posterior probabilities using information on MSI. This improves predictions substantially. Using a probability threshold of 10% for mutation analysis, the AIFEG model applied to our series has 100% sensitivity and 71% specificity.

Collaborative studies





Per partecipare  
registrarsi sul sito:  
[www.meeting-eventi.com/oncologia](http://www.meeting-eventi.com/oncologia)

# Convivio sull'Ereditarietà e XIV Congresso AIFEG

Associazione Italiana per lo Studio delle Familiarità ed Ereditarietà nei Tumori Gastrointestinali

## Verona

### 10-11-12 Novembre 2016

### CENTRO MEDICO MARANI

**Dead Line abstract: 20 ottobre 2016**

Inviare gli abstract al seguente indirizzo: [ANDREA.REMO@AULSSLEGNAGO.IT](mailto:ANDREA.REMO@AULSSLEGNAGO.IT)

**Continuing medical education credits :**

*biologists,  
nurses,  
laboratory technicians,  
physicians from different areas*

ACCREDITAMENTO ECM - EVENTO N. 170965

Il Provider ha attribuito n. 13,5 crediti formativi.

Evento rivolto a 150 tra Biologi, Infermieri, Tecnici di Laboratorio e Medici Area Interdisciplinare.

## Very recently

- a PATIENTS ASSOCIATION linked to A.I.F.E.G. was set up by a Lynch patient who was motivated by personal events
- this link helped in obtaining prescription charge exemption for Lynch genetic test and cancer prevention (including specialized cancer screening, intensified surveillance, and/or prophylactic surgeries)
- dissemination and educational activities are progressively enhanced through linkages with other Scientific Associations such as SIGU, SIC.....

**RIUNIONI DI GENETICA CLINICA**

**30/06/2017 ORE 13.00 – 14.00**  
**IEO – AULA B**

**“SINDROME DI LYNCH: NOVITA’ GENETICHE E ATTUALE APPROCCIO CLINICO”**

13.00 <b>B. BONANNI</b>	<i>BENVENUTO E INTRODUZIONE</i>
13.05 <b>L. BERTARIO</b>	<i>QUANDO SOSPETTARLA CLINICAMENTE?</i>
13.20 <b>M.G. TIBILETTI</b>	<i>NUOVE MODALITA’ DI APPROCCIO DIAGNOSTICO</i>
13.40	<i>CASI CLINICI E DISCUSSIONE GENERALE</i>

In collaborazione con



Patrocinio richiesto a



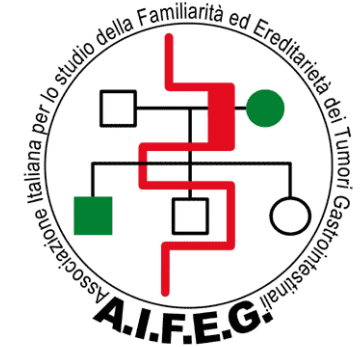
**E  
d  
u  
c  
a  
t  
i  
o  
n**





# The board of A.I.F.E.G.

Guglielmina Nadia Ranzani (president)	<i>University of Pavia</i>
Maria Grazia Tibiletti (vice president)	<i>Varese Hospital</i>
Luca Roncucci	<i>University of Modena</i>
Lupe Sanchez	<i>Regina Elena Institute-Rome</i>
Antonio Chiappa	<i>I.E.O. Milan</i>
Matteo Fassan	<i>University of Padova</i>
Alessandra Viel	<i>Cancer Institute (CRO)-Aviano</i>



**Thank you for your attention and  
please bear AIFEG in mind  
for future collaborations**

There is still a long way to go.....

