SAPHOS Research Experience
SAPHOS

• SAPHOS is one of the scientific societies of King Saud University.
• It was established in 2008.
• Past presidents:
  – Dr. Abdullah Alnasser 2008-2011
  – Dr. Abdulrahman Alsultan 2012-2014
• Current Board (2015-2018):
  – Dr. Ali Alshehri (president)
  – Dr. Ibrahim Abu Soudah (vice-president)
  – Dr. Mohammed Alshahrani
  – Dr. Arwa Yamani
  – Dr. Khalid Aljamman
  – Dr. Nawaf Alkhayat
  – Dr. Amal Alsearihi
  – Dr. Fawaz Alqassim
  – Dr. Shaker Abdullah
SAPHOS

- Our primary goal at SAPHOS is to conduct a high quality collaborative childhood cancer research in Saudi Arabia that will contribute significantly to the progress of the field both nationally and internationally.

- We established five scientific committees to study most childhood cancer types (Leukemia, Brain tumors, Solid tumors, Familial cancer syndromes, and Histiocytic disorders) with representation from all institutions in Saudi Arabia.
SAPHOS

• Most of SAPHOS scientific research projects were funded by SANAD annual grant program for scientific research.

• Sanad is a non-profitable charitable association that is registered in the Ministry of Social Affairs.
Acute Lymphoblastic Leukemia

- PIs: Dr. Reem Alsudairy
- This study was conducted to establish processes for collaborative data collection and provide clinical characteristics and outcome of children with ALL in SA.
- Clinical data for patients diagnosed from 2004 to 2008 were retrospectively collected at eight institutions and entered remotely into a custom-built database (KFSH).
- The 594 evaluable patients had a median age of 4.37 years and 56.4% were boys. Majority of patients had B-precursor ALL while 10.7% had T-ALL.
Acute Lymphoblastic Leukemia
Acute Lymphoblastic Leukemia

Fig. 1. Distribution of treatment protocols used to treat the patients.
Acute Lymphoblastic Leukemia


Clinical Characteristics and Treatment Outcome of Childhood Acute Lymphoblastic Leukemia in Saudi Arabia: A Multi-Institutional Retrospective National Collaborative Study

Reem Al-Sudairy, MD,1 Abdullah Al-Nasser, MD,2,3 Abdulrahman Alsultan, MD,4 Ali Al Ahmari, MD,2 Ibraheem Abosoudah, MD,5 Reema Al-Hayek, MD,6 Talal Al-Harbi, MD,1 Fahad Al-Manjomi, MD,7 Musa Al-Harbi, MD,7 Hasna Al-Ghamdi, MD,8 Mohammed Al-Shahrani, MD,9 and Asim F. Belgaumi, MD2,10*
Acute myeloid Leukemia

- PI: Dr. Wasil Jastaniah
Acute myeloid Leukemia

- Data were collected from participating institutions remotely using Research Electronic Data Capture (REDCap) tools utilizing google cloud services.

- REDCap (Research Electronic Data Capture) is a secure, web-based application designed to support data capture for research studies.
Acute myeloid Leukemia

A

Probability

Time (years)

OS: 58.8±4%

EFS: 40.9±4.1%

B

Cumulative Incidence

Time (years)

Relapse

NRM
Acute myeloid Leukemia

LR: 72.0±6.9%
IR: 59.8±6.2%
HR: 45.1±7.4%

p=0.003
Acute myeloid Leukemia
Clinical characteristics and outcome of childhood de novo acute myeloid leukemia in Saudi Arabia: A multicenter SAPHOS leukemia group study

Wasil Jastaniah (Chairman)\textsuperscript{a,b,*}, Ibrahim Al Chemlas\textsuperscript{c,d}, Saad Al Daama\textsuperscript{e}, Walid Ballourah\textsuperscript{f}, Mohammad Bayoumy\textsuperscript{g}, Faisal Al-Anzi\textsuperscript{h}, Omar Al Shareef\textsuperscript{i}, Abdulrahman Alsultan\textsuperscript{j}, Mohammed Burhan Abrar\textsuperscript{b}, Reem Al Sudairy\textsuperscript{k}

\textsuperscript{a} Department of Pediatrics, Faculty of Medicine, Umm AlQura University, Makkah, Saudi Arabia
\textsuperscript{b} Princess Noorah Oncology Center, King Abdulaziz Medical City, Jeddah, Saudi Arabia
\textsuperscript{c} King Faisal Specialist Hospital & Research Center — Riyadh, Saudi Arabia
\textsuperscript{d} Assistant Professor, Faculty of Medicine, AlFaisal University, Riyadh, Saudi Arabia
\textsuperscript{e} King Fahad Specialist Hospital — Dammam, Saudi Arabia
\textsuperscript{f} King Fahad Medical City — Riyadh, Saudi Arabia
\textsuperscript{g} King Faisal Specialist Hospital & Research Center — Jeddah, Saudi Arabia
\textsuperscript{h} Prince Faisal Bin Bandar Cancer Center — Qaseem, Saudi Arabia
\textsuperscript{i} Prince Sultan Military Medical City — Riyadh, Saudi Arabia
\textsuperscript{j} Department of Pediatrics, College of Medicine, King Saud University — Riyadh, Saudi Arabia
\textsuperscript{k} Department of Pediatric Hematology/Oncology, King Abdullah specialized Children’s Hospital, King Abdulaziz Medical City — Riyadh, Saudi Arabia
Acute myeloid Leukemia

Clinical characteristics and outcome of childhood acute promyelocytic leukemia (APL) in Saudi Arabia: a multicenter SAPHOS leukemia group study

Wasil Jastaniah\textsuperscript{a,b}, Abdulrahman Alsultan\textsuperscript{c}, Saad Al Daama\textsuperscript{d}, Walid Ballourah \textsuperscript{e}, Mohamed Bayoumy\textsuperscript{f}, Faisal Al-Anzi\textsuperscript{g}, Omar Al Shareef\textsuperscript{h}, Mohammed Burhan Abrar\textsuperscript{b}, Reem Al Sudairy\textsuperscript{i} and Ibrahim Al Ghemlas\textsuperscript{j,k}

\textsuperscript{a}Department of Pediatrics, Faculty of Medicine, Umm Al-Qura University, Makkah, Saudi Arabia; \textsuperscript{b}Princess Noorah Oncology Center, King Saud Bin Abdulaziz University and King Abdulaziz Medical City, Jeddah, Saudi Arabia; \textsuperscript{c}Department of Pediatrics, College of Medicine, King Saud University, Riyadh, Saudi Arabia; \textsuperscript{d}King Fahad Specialist Hospital, Dammam, Saudi Arabia; \textsuperscript{e}King Fahad Medical City, Riyadh, Saudi Arabia; \textsuperscript{f}King Faisal Specialist Hospital & Research Center, Jeddah, Saudi Arabia; \textsuperscript{g}Prince Faisal Bin Bandar Cancer Center, Qaseem, Saudi Arabia; \textsuperscript{h}Prince Sultan Military Medical City, Riyadh, Saudi Arabia; \textsuperscript{i}Department of Pediatric Hematology/Oncology, King Abdullah specialized Children’s Hospital, King Abdulaziz Medical City, Riyadh, Saudi Arabia; \textsuperscript{j}Faculty of Medicine Alfaisal University, Riyadh, Saudi Arabia; \textsuperscript{k}King Faisal Specialist Hospital & Research Center, Riyadh, Saudi Arabia
Acute myeloid Leukemia

Leukemia Research 58 (2017) 48–54

Contents lists available at ScienceDirect

Leukemia Research

journal homepage: www.elsevier.com/locate/leukres

Research paper

Treatment results in children with myeloid leukemia of Down syndrome in Saudi Arabia: A multicenter SAPHOS leukemia group study

Wasil Jastaniah, Abdulrahman Alsultan, Saad Al Daama, Walid Ballourah, Mohammad Bayoumy, Faisal Al-Anzi, Omar Al Shareef, Mohammed Burhan Abrar, Reem Al Sudairy, Ibrahim Al Ghemlas

a Department of Pediatrics, Faculty of Medicine, Umm Al-Qura University, Makkah, Saudi Arabia
b Princess Noorah Oncology Center, King Saud Bin Abdulaziz University and King Abdulaziz Medical City, Jeddah, Saudi Arabia
c Department of Pediatrics, College of Medicine, King Saud University, Riyadh, Saudi Arabia
d King Fahad Specialist Hospital, Dammam, Saudi Arabia
e King Fahad Medical City, Riyadh, Saudi Arabia
f King Faisal Specialist Hospital & Research Center, Jeddah, Saudi Arabia
g Prince Faisal Bin Bandar Cancer Center, Qaseem, Saudi Arabia
h Prince Sultan Military Medical City, Riyadh, Saudi Arabia
i Department of Pediatric Hematology/Oncology, King Abdullah specialized Children’s Hospital, King Abdulaziz Medical City, Riyadh, Saudi Arabia
j Faculty of Medicine, Alfaisal University, Riyadh, Saudi Arabia
k King Faisal Specialist Hospital & Research Center, Riyadh, Saudi Arabia
Prevalence of Hereditary Cancer Among Children with Cancer in Saudi Arabia

- **PI/Co-PIs:** Wasil Jastaniah- Abdullah Aljefri- Mouhab Ayas- Musa Alharbi- Nawaf Alkhayat- Faisal Alanzi- Fawwaz Yassin- Fawaz Al-Kasim- Shaker Abdullah- Mohammed Burhan Abrar- Abdulrahman S. Alsultan

- Risk of hereditary cancer was 40% in 1742 children with cancer in Saudi Arabia.

- Parental consanguinity was the most frequent reason for cancer genetics referral.

- Consanguinity had no bearing on the median age of childhood cancer diagnosis.

- Lower leukemia and higher rhabdomyosarcoma frequency in children of consanguinity.

- The overall risk of Li-Fraumeni Syndrome was approximately 7% in our population.
### Cancer Epidemiology in Saudi Arabia

<table>
<thead>
<tr>
<th>Locations of treating institution</th>
<th>Number of patients (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Same city</td>
<td>652 (39.3%)</td>
</tr>
<tr>
<td>Same province but different city</td>
<td>308 (18.6%)</td>
</tr>
<tr>
<td>Different province</td>
<td>613 (37.0%)</td>
</tr>
<tr>
<td>&lt;200 km</td>
<td>3 (0.1%)</td>
</tr>
<tr>
<td>200-&lt;400 km</td>
<td>74 (4.5%)</td>
</tr>
<tr>
<td>400-&lt;600 km</td>
<td>122 (7.4%)</td>
</tr>
<tr>
<td>600-&lt;800 km</td>
<td>104 (6.3%)</td>
</tr>
<tr>
<td>800-&lt;1000 km</td>
<td>94 (5.7%)</td>
</tr>
<tr>
<td>1000-&lt;1200 km</td>
<td>124 (7.5%)</td>
</tr>
<tr>
<td>1200-&lt;1400 km</td>
<td>89 (5.4%)</td>
</tr>
<tr>
<td>1400-&lt;1600 km</td>
<td>3 (0.1%)</td>
</tr>
<tr>
<td>Unknown</td>
<td>84 (5.1%)</td>
</tr>
</tbody>
</table>
# Cancer Epidemiology in Saudi Arabia

## Number of patients

<table>
<thead>
<tr>
<th>Provinces (patient’s home)</th>
<th>Riyadh</th>
<th>Makkah</th>
<th>Eastern</th>
<th>Madinah</th>
<th>Aseer</th>
<th>Jizan</th>
<th>Qassim</th>
<th>Hail</th>
<th>Aljouf</th>
<th>Tabuk</th>
<th>Najran</th>
<th>Albaha</th>
<th>North</th>
<th>ND</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of patients</td>
<td>511</td>
<td>336</td>
<td>175</td>
<td>108</td>
<td>102</td>
<td>67</td>
<td>63</td>
<td>57</td>
<td>44</td>
<td>39</td>
<td>28</td>
<td>23</td>
<td>20</td>
<td>84</td>
</tr>
</tbody>
</table>

## Treating institution-different province

<table>
<thead>
<tr>
<th>Provinces (patient’s home)</th>
<th>Riyadh</th>
<th>Makkah</th>
<th>Eastern</th>
<th>Madinah</th>
<th>Aseer</th>
<th>Jizan</th>
<th>Qassim</th>
<th>Hail</th>
<th>Aljouf</th>
<th>Tabuk</th>
<th>Najran</th>
<th>Albaha</th>
<th>North</th>
<th>ND</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treating institution-different province</td>
<td>5 (0.9%)</td>
<td>32 (9.5%)</td>
<td>82 (47%)</td>
<td>108 (100%)</td>
<td>102 (100%)</td>
<td>67 (100%)</td>
<td>6 (9.5%)</td>
<td>57 (100%)</td>
<td>44 (100%)</td>
<td>39 (100%)</td>
<td>28 (100%)</td>
<td>23 (100%)</td>
<td>20 (100%)</td>
<td>na</td>
</tr>
</tbody>
</table>
Ten Simple Rules for a Successful Collaboration

Quentin Vicens, Philip E. Bourne
Rules for a Successful Collaboration

• Do Not Be attracted into Just Any Collaboration: Enter a collaboration because of a shared passion for the science, not just because you think getting that grant or working with this person would look good on your CV.

• Decide at the Beginning Who Will Work on What Tasks

• Stick to Your Tasks: Do not change your initial plans without discussing the change with your collaborators.

• Be Open and Honest

• Feel Respect, Get Respect: There is nothing more frustrating for your collaborators than to have to throttle their progress while they are waiting for you to send them your data.
Rules for a Successful Collaboration

• Communicate, Communicate, and Communicate: Face to face > video conference > emails

• Protect Yourself from a Collaboration That Turns Sour: After three chances, if it feels like the collaboration cannot be saved, move on. At that point try to minimize the role of your collaborators in your work.

• Always Acknowledge and Cite Your Collaborators

• Seek Advice from Experienced Scientists

• If Your Collaboration Satisfies You, Keep It Going